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NIST
PUBLICATIONS

NVLAP[®]

**National
Voluntary
Laboratory
Accreditation
Program**

2000 DIRECTORY

NIST Special Publication 810, 2000 Edition

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NIST

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National Institute of Standards and Technology

The National Institute of Standards and Technology was established in 1988 by Congress to "assist industry in the development of technology . . . needed to improve product quality, to modernize manufacturing processes, to ensure product reliability . . . and to facilitate rapid commercialization . . . of products based on new scientific discoveries."

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- Microelectronics
- Law Enforcement Standards
- Electricity
- Semiconductor Electronics
- Electromagnetic Fields¹
- Electromagnetic Technology¹
- Optoelectronics¹

Chemical Science and Technology Laboratory

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- Physical and Chemical Properties²
- Analytical Chemistry
- Process Measurements
- Surface and Microanalysis Science

Physics Laboratory

- Electron and Optical Physics
- Atomic Physics
- Optical Technology
- Ionizing Radiation
- Time and Frequency¹
- Quantum Physics¹

Materials Science and Engineering Laboratory

- Intelligent Processing of Materials
- Ceramics
- Materials Reliability¹
- Polymers
- Metallurgy
- NIST Center for Neutron Research

Manufacturing Engineering Laboratory

- Precision Engineering
- Automated Production Technology
- Intelligent Systems
- Fabrication Technology
- Manufacturing Systems Integration

Building and Fire Research Laboratory

- Structures
- Building Materials
- Building Environment
- Fire Safety Engineering
- Fire Science

Information Technology Laboratory

- Mathematical and Computational Sciences²
- Advanced Network Technologies
- Computer Security
- Information Access and User Interfaces
- High Performance Systems and Services
- Distributed Computing and Information Services
- Software Diagnostics and Conformance Testing
- Statistical Engineering

¹ At Boulder, CO 80303.

² Some elements at Boulder, CO.

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2000 DIRECTORY

Vanda R. White, Editor
National Voluntary Laboratory Accreditation Program
Office of Standards Services
Technology Services

March 2000

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U.S. Department of Commerce
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National Institute of Standards and Technology
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NVLAP AND THE NVLAP LOGO

The term NVLAP and the NVLAP logo are Federally registered trademarks of the National Institute of Standards and Technology and the Federal Government, who retain exclusive rights therein. Permission to use the term and/or the logo is granted to NVLAP-accredited laboratories for the limited purposes of announcing their accredited status, and for use on reports that describe only testing and calibration within the scope of accreditation. NIST reserves the right to control the quality of the use of the term NVLAP and of the logo itself.

INTRODUCTION

The laboratories listed in this Directory have been found to be competent to perform certain tests or calibrations as specified. These laboratories are allowed to use the NVLAP logo on their test or calibration certificates or reports, which implies that the processes used to achieve the tests or calibrations have been evaluated by NVLAP as being technically adequate when performed under the conditions specified in the laboratories' quality manuals and associated documentation. Further, NVLAP certifies that the laboratories have demonstrated traceability of their tests or calibrations to national standards at the appropriate levels of uncertainty for which the laboratories have been accredited.

As a prospective customer of the laboratories listed in this Directory, you should be aware that the laboratories are obligated to inform you, before the fact, whenever a test or a calibration service which you have requested is not covered by the NVLAP accreditation (NIST Handbook 150, Section 285.33(k)(8)). When contracting for the test or calibration service, you have the right to specify whether or not you desire a NVLAP-accredited test or calibration. Provision of a non-NVLAP-accredited test or calibration shall not be accompanied by the use of the NVLAP logo on the certificate or report, and NVLAP does not endorse any claims made regarding traceability and uncertainty of the measurements performed.

In addition, if a laboratory performs a combination of tests or calibrations, some of which have been accredited by NVLAP and some of which have not, the laboratory is bound by the provisions of NIST Handbook 150 to clearly identify the tests or calibrations covered by NVLAP accreditation and those not accredited by NVLAP on the test or calibration certificate or report.

Current information on the accreditation status of a laboratory can be obtained by contacting NVLAP as follows:

- (1) Address: Chief, Laboratory Accreditation Program
National Institute of Standards and Technology
100 Bureau Drive, Stop 2140
Gaithersburg, MD 20899-2140;
- (2) Phone: (301) 975-4016;
- (3) Fax: (301) 926-2884; or
- (4) E-mail: nvlap@nist.gov.

NVLAP also maintains a directory of accredited laboratories on the Internet, which is updated quarterly. The URL for NVLAP's home page is <http://ts.nist.gov/nvlap>.

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PROGRAM SUMMARY

The National Institute of Standards and Technology (NIST) administers the National Voluntary Laboratory Accreditation Program (NVLAP). NVLAP is comprised of a series of laboratory accreditation programs (LAPs) which are established on the basis of requests and demonstrated need. Each LAP includes specific calibration and/or test standards and related methods and protocols assembled to satisfy the unique needs for accreditation in a field of testing or calibration. NVLAP accredits public and private laboratories based on evaluation of their technical qualifications and competence to carry out specific calibrations or tests. Accreditation criteria are published in the Code of Federal Regulations (Title 15, Part 285) as a part of the NVLAP Procedures and General Requirements, and encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002. Accreditation is granted following successful completion of a process which includes submission of an application and payment of fees by the laboratory, an on-site assessment, resolution of any deficiencies identified during the on-site assessment, participation in proficiency testing, and technical evaluation. The accreditation is formalized through issuance of a Certificate of Accreditation and Scope of Accreditation (fig. 1) and publicized by announcement in various government and private media.

NVLAP accreditation is available to commercial laboratories; manufacturers' in-house laboratories; university laboratories; and federal, state, and local government laboratories. Foreign-based laboratories may also be accredited if they meet the same requirements as domestic laboratories and pay any additional fees required for travel expenses.

NVLAP provides an unbiased third party evaluation and recognition of performance, as well as expert technical guidance to upgrade laboratory performance. NVLAP accreditation signifies that a laboratory has demonstrated that it operates in accordance with NVLAP requirements in the following areas: accommodation and environment; calibration and test methods; certificates and reports; complaints; equipment and reference materials; handling of calibration and test items; measurement traceability and calibration; organization and management; outside support services and supplies; personnel; quality system, audit and review; records; and subcontracting. NVLAP accreditation does not imply any guarantee (certification) of laboratory performance or test/calibration data; it is solely a finding of laboratory competence. A laboratory may cite its accredited status and use the NVLAP logo on reports, stationery, and in business and trade publications provided that this use does not imply product certification.

This Directory of laboratories is published annually and lists the name, address, contact person, phone and fax numbers, e-mail and URL addresses (if available), accreditation renewal date, and scope of accreditation for each laboratory. An updated listing of laboratories is published quarterly on NVLAP's home page on the Internet: <http://ts.nist.gov/nvlap>.

Accreditation Renewal Date

A laboratory accreditation is valid for one year and commences on one of four dates: January 1, April 1, July 1, or October 1; an accreditation will terminate after one year unless renewed by the laboratory. Users of this Directory who are considering selection of accredited laboratories should be aware of the renewal date and verify that the laboratory has retained its accreditation at the time its services are to be provided. Verification of accreditation status can be obtained by contacting NVLAP.

On-Site Assessment

Before initial accreditation, an on-site assessment of each laboratory is conducted to determine compliance with the NVLAP criteria. After accreditation is granted, an on-site assessment must be conducted every two years in order for the laboratory to maintain accreditation. An assessment is conducted by one or more NVLAP assessors selected on the basis of their expertise in the field of testing or calibration to be reviewed. They may be engineers or scientists currently active in the field, consultants, college professors or retired persons. Their services are generally contracted as required:

Assessors use checklists provided by NVLAP so that each laboratory receives an assessment comparable to that received by others. However, assessors have some latitude to make judgments about a laboratory's compliance with the NVLAP criteria.

An assessment normally takes one to five days depending on the extent of the laboratory's application. Every effort is made to conduct an assessment with as little disruption as possible to the normal operations of the laboratory. During the assessment, the assessor carries out the following functions:

- meets with management and supervisory personnel responsible for the laboratory's activities to review the assessment process and to set the assessment agenda;
- examines the laboratory's quality assurance system, selects and traces the history of one or more samples from receipt to final issuance of reports, conducts a thorough review of the laboratory's quality manual, evaluates the training program, examines notebooks or records pertaining to the samples, checks sample identification and tracking procedures, determines whether the appropriate environmental conditions are maintained, and examines copies of completed reports;
- reviews records of periodic internal audits, use of check samples or participation in round-robin testing or other similar programs, personnel records including resumes and job descriptions of key personnel, competency evaluations for all staff members who routinely perform the testing or calibration for which accreditation is sought, calibration or verification records for apparatus used, reports, and sample control records;
- observes demonstrations of laboratory techniques and discusses them with the technical personnel to assure their understanding of the procedures; and
- examines major equipment, apparatus, and facilities.

At the conclusion of the assessment, the assessor will conduct an exit briefing to discuss observations and any deficiencies with responsible laboratory staff. A written assessment report will be left with the laboratory, and a copy forwarded to NVLAP.

If the on-site inspection reveals deficiencies that pertain to NVLAP requirements, the laboratory must respond in writing to NVLAP within 30 days of such notification. The response must provide documentation, signed by the Authorized Representative, that the specified deficiencies have either been corrected or include a plan of action to make corrections.

Monitoring Visits

Monitoring visits may be conducted at any time during the accreditation period for cause or on a random selection basis. These visits serve to verify reported changes in the laboratory's personnel, facilities, or operations, or to explore possible reasons for poor performance in proficiency testing. The scope of a monitoring visit may range from checking a few designated items to a complete review.

Proficiency Testing

Proficiency testing is an integral part of the NVLAP accreditation process. On-site demonstration of appropriate facilities, equipment, personnel, etc., is essential, but may not be sufficient for the continuing evaluation of laboratory competence. The production of test/calibration data using special proficiency testing samples or artifacts provides NVLAP with a means to determine the overall competence of the laboratory. Information obtained from proficiency testing helps to identify problems in a laboratory. When problems are found, NVLAP works with the laboratory staff to solve them.

Most fields of accreditation have proficiency testing requirements. Data submitted by the laboratories in response to specific NVLAP requirements are analyzed and reports of the results are made known to the participants. Summary results are available upon request to other interested parties; e.g., professional societies and standards writing bodies. The identity and performance of individual laboratories are kept confidential.

Satisfactory participation is based on specially tailored exercises designed to evaluate the ability of the laboratory to produce the services for which it is accredited. Some methods define pass/fail criteria; in other cases, individual laboratory results must fall within statistically acceptable limits of overall group performance. In a number of programs, NVLAP requires satisfactory participation in proficiency testing as a condition of initial, as well as continuing, accreditation.

Technical Evaluation

To determine if all technical requirements have been fulfilled by a laboratory, a final technical evaluation is performed by NVLAP. The evaluation is based on a review of the record of the laboratory as a whole, including:

- information provided on the application;
- results of quality system documentation review;
- on-site assessment reports;
- actions taken by the laboratory to correct deficiencies;
- results of proficiency testing; and
- information from any monitoring visits of the laboratory.

If the technical evaluation reveals additional deficiencies, written notification of the deficiencies will be sent to the laboratory. The laboratory must respond as specified in the previous section, *On-Site Assessment*. Clarification of some issues may be requested by telephone. All deficiencies must be resolved before accreditation can be granted.

Accreditation Actions

After the technical evaluation has been completed and all financial and administrative requirements have been satisfied, NVLAP takes one of the following accreditation actions:

Accreditation The laboratory is issued a Certificate of Accreditation and a Scope of Accreditation.

Denial The laboratory is notified of a proposal to deny accreditation and the reason(s).

If an accredited laboratory is found to be out of compliance with the NVLAP criteria, NVLAP may take one of the following actions:

Suspension Suspension is a temporary removal of the accredited status of a laboratory when it is found to be out of compliance with the terms of its accreditation. The laboratory will be notified of the reasons for and conditions of the suspension and the action(s) that the laboratory must take to have the accreditation reinstated.

Reasons for suspension include: loss of key personnel, loss of major equipment, damage to laboratory by fire, changing laboratory location, proficiency test failure.

Revocation Revocation is the removal of the accredited status of a laboratory when it is found to have violated the terms of its accreditation. The laboratory will be notified of the reasons for proposed revocation and the procedure for appealing such a decision. If accreditation is revoked, the laboratory may be given the option of voluntarily terminating the accreditation. A laboratory whose accreditation has been revoked must return its Certificate of Accreditation and cease use of the NVLAP logo on any of its reports, correspondence, or advertising.

Reasons for revocation include: obtaining accreditation through fraud, refusal to resolve deficiencies, no longer providing the type of calibration or testing service for which accreditation was issued.

If denial or revocation has been proposed, the laboratory may appeal the decision to the Director of NIST. If an appeal is not requested, the action becomes final upon the expiration of the 30-day period following receipt of the notification.

NVLAP[®]

National Institute
of Standards and Technology

National Voluntary
Laboratory Accreditation Program

ISO/IEC GUIDE 25:1990
ISO 9002:1987

Scope of Accreditation

Page 1 of 1

NVLAP LAB CODE 100000-0

ELECTROMAGNETIC COMPATIBILITY AND
TELECOMMUNICATIONS

LABORATORY NAME
Anytown, USA 00000-0000
Mr. John Doe
Phone: 000-000-0000 Fax: xxx-xxx-xxxx

Code

Designation

FCC Method - 47 CFR Part 15 - Digital Devices
Conducted Emissions, Power Lines, 450 KHz to 30 MHz
Radiated Emissions
Terminal Equipment Network Protection Standards,
FCC Method - 47 CFR Part 68 - Analog and Digital

302 (Par. c, d, e, f) Environmental simulation;
304 Leakage current limitations;
305 Hazardous voltage limitations;
308 Signal power limitations;
68.310 Longitudinal balance limitations;
68.312 On-hook impedance limitations;
68.314 Billing protection
68.316 Hearing aid compatibility: technical standards
68.302 Environmental simulation (Par. a, b)

December 31, 2XXX

Effective through

David F. Alderman

For the National Institute of Standards and Technology

NVLAP-OTS (11-95)

NVLAP[®]

United States Department of Commerce

National Institute of Standards and Technology

Certificate of Accreditation

LABORATORY NAME
Anytown, USA

ISO/IEC GUIDE 25:1990
ISO 9002:1987

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

December 31, 2XXX

Effective through

David F. Alderman

For the National Institute of Standards and Technology

NVLAP-OTS (11-95)

NVLAP LAB CODE: 100000-0

12/T01b
12/T01c

302 (Par. c, d, e, f) Environmental simulation;
304 Leakage current limitations;
305 Hazardous voltage limitations;
308 Signal power limitations;
68.310 Longitudinal balance limitations;
68.312 On-hook impedance limitations;
68.314 Billing protection
68.316 Hearing aid compatibility: technical standards
68.302 Environmental simulation (Par. a, b)

Figure 1. NVLAP Certificate and Scope of Accreditation (sample)

LABORATORY ACCREDITATION SUMMARY

The following table summarizes laboratory accreditations by field of testing or calibration as of the date this Directory was prepared for publication. Since some laboratories are accredited in more than one field, the total number of laboratories listed by field of accreditation (see Index B) is greater than the number of laboratories in the system (see Index A).

<i>PROGRAM GROUP/Field of Accreditation</i>	<i>Number of Accreditations</i>
--	--

CALIBRATION LABORATORIES GROUP

Dimensional	11
Electromagnetics - DC/Low Frequency	9
Electromagnetics - RF/Microwave	7
Ionizing Radiation	5
Mechanical	11
Optical Radiation	1
Thermodynamic	7
Time and Frequency	9

CHEMICAL CALIBRATION LABORATORIES GROUP

Providers of Proficiency Testing (PPT)	11
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COMPUTER/ELECTRONICS GROUP

Cryptographic Modules Testing	4
Federal Communications Commission (FCC) Methods	161
MIL-STD-462 Test Methods	19

DOSIMETRY GROUP/Ionizing Radiation Dosimetry	41
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ENVIRONMENTAL GROUP/Asbestos Fiber Analysis:	PLM test method	273
	TEM test method	74

FASTENERS AND METALS GROUP	64
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PRODUCT TESTING GROUP

Acoustical Testing Services	20
Carpet and Carpet Cushion	12
Commercial Products Testing	6
(Paints, Paper, Plastics, Plumbing, Roofing, Seals/Sealants)	
Construction Materials Testing	16
Efficiency of Electric Motors	8
Energy Efficient Lighting Products	9
Thermal Insulation Materials	18
Wood Based Products	5

TOTAL ACCREDITATIONS	801
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HOW TO USE THIS DIRECTORY

The *2000 Directory* lists laboratories accredited by NVLAP. It consists of six indexes which are cross-referenced by NVLAP Lab Code, a unique identifier assigned to each laboratory; e.g., 100000-0. The Directory enables the user to locate name, address, contact, and accreditation information about laboratories of interest. The user should contact the laboratories directly to get information beyond that provided here.

INDEX A, LISTING BY LABORATORY NAME, lists all laboratories in alphabetical order by laboratory name. The name of each laboratory is listed as it appears on its application for accreditation.

INDEX B, LISTING BY FIELD OF ACCREDITATION, lists all laboratories in alphabetical order by laboratory name within field of accreditation. The index is organized by PROGRAM GROUPS, which are groups of Laboratory Accreditation Programs (LAPs) assembled in categories of technical fields for efficiency in management (see page 6). Listed under each PROGRAM GROUP are the technical fields of accreditation managed within that GROUP. Laboratories accredited in more than one field will have more than one listing in this index.

INDEX C, LISTING BY STATE/COUNTRY, lists all laboratories in alphabetical order by laboratory name within state. The states are designated by the standard two-letter postal abbreviations. Laboratories located outside of the United States are listed at the end of the index. Index C also indicates the field of accreditation for each laboratory.

INDEX D, LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE, lists all testing laboratories in numerical order by NVLAP Lab Code. There is only one listing per Lab Code in Index D.

INDEX E, LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE, lists calibration laboratories in numerical order by NVLAP Lab Code. There is only one listing per Lab Code in Index E.

INDEX F, LISTING OF CHEMICAL CALIBRATION LABORATORIES BY NVLAP LAB CODE, lists chemical calibration laboratories in numerical order by NVLAP Lab Code. At this time, there is only one field of accreditation listed in Index F—Providers of Proficiency Testing.

INFORMATION CONTAINED IN INDEXES D, E, AND F

Each laboratory receives a Certificate of Accreditation and a Scope of Accreditation when accreditation is granted or renewed. The Scope of Accreditation details the methods and services for which accreditation has been granted to a laboratory. Indexes D, E, and F present a condensation of the Scope(s) of Accreditation for testing, calibration, and chemical calibration laboratories, respectively.

The following information is presented for each laboratory listed in Indexes D, E, or F:

- (a) NVLAP Lab Code;
- (b) Laboratory name and address;
- (c) Authorized representative (contact);
- (d) Phone number;
- (e) Fax number;
- (f) E-mail address (if available);
- (g) URL (web site) address (if available);
- (h) Field of accreditation;

- (i) Accreditation expiration date; and
- (j) Scope of accreditation.

HOW TO LOCATE SPECIFIC INFORMATION

For a laboratory whose name is known

Refer to Index A and note the laboratory's NVLAP Lab Code. Look up the Lab Code in Index D, E or F to obtain specific information about the laboratory; e.g., address, phone number, Scope of Accreditation, etc.

For a laboratory in a particular geographic area

Determine the states (or country) included in the geographic area of interest. Refer to Index C to obtain the NVLAP Lab Code of a laboratory within the selected geographic area for a given field of accreditation. Look up the Lab Code in Index D, E, or F to obtain specific information about the laboratory; e.g., address, phone number, Scope of Accreditation, etc.

For a laboratory in a particular field of accreditation

Choose the field of accreditation from the list on page 6. Refer to Index B and note the name and Lab Code of each laboratory of interest. Index B is organized by field of accreditation within major program group. Look up the Lab Code in Index D, E, or F to obtain specific information about the laboratory; e.g., address, phone number, Scope of Accreditation, etc.

SPECIAL NOTE ABOUT LABORATORIES ACCREDITED IN ASBESTOS FIBER ANALYSIS

The test method designations for Bulk Asbestos Analysis (PLM) and Airborne Asbestos Analysis (TEM) are as follows:

<i>NVLAP Code</i>	<i>Program Title/Test Method Designation</i>
18/A01	BULK ASBESTOS ANALYSIS (PLM) U.S. Environmental Protection Agency (EPA) "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" as found in 40 Code of Federal Regulations (CFR), Part 763, Subpart F, Appendix A, or the current U.S. EPA method for the analysis of asbestos in building material.
18/A02	AIRBORNE ASBESTOS ANALYSIS (TEM) U.S. Environmental Protection Agency (EPA) "Interim Transmission Electron Microscopy Analytical Methods—Mandatory and Nonmandatory—and Mandatory Section to Determine Completion of Response Actions" as found in 40 Code of Federal Regulations (CFR), Part 763, Subpart E, Appendix A.

INDEX

A

**LISTING BY
LABORATORY
NAME**

INDEX A. LISTING BY LABORATORY NAME

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
3			
3M Product Safety EMC Laboratory	200033-0	St. Paul	MN
A			
A & B Environmental Services, Inc.	101793-0	Houston	TX
A-Pex International Co., Ltd. Yamakita Laboratory	200441-0	Ashigarakami-gun	JAPAN
A-Pex International Co., Ltd. Yokowa Laboratory	200109-0	Mie-ken	JAPAN
A.E.S.L. Environmental Laboratory	200303-0	Tempe	AZ
A.O. Smith (Lexington) Engineering Laboratory	200053-0	Lexington	TN
A.R.C. Laboratories, Inc.	101832-0	Grand Forks	ND
ABM Environmental Consultants, Inc.	102015-0	Long Island City	NY
Absolute Standards, Inc.	200390-0	Hamden	CT
Accredited Environmental Technologies, Inc.	101051-0	Media	PA
Accredited Environmental Technologies, Inc.	200236-0	Leland	NC
AccuStandard, Inc.	200389-0	New Haven	CT
ACM Environmental, Inc.	101977-0	South Bend	IN
Acos Villares SA - Chemical Laboratory	200394-0	Pindamonhangaba SP	BRASIL
Acoustic Systems Acoustical Research Facility	100286-0	Austin	TX
Advance Data Technology Corporation	200102-0	Taipei Hsien	TAIWAN
Advance Data Technology Corporation Hsin Chu EMC Laboratory	200376-0	Hsin Chu Hsien	TAIWAN
Advanced Energy, Industrial Energy Laboratory	200081-0	Raleigh	NC
Advanced Industrial Hygiene Services, Inc.	101006-0	Miami	FL
Aearo Company, E·A·RCAL Acoustical Laboratory	100374-0	Indianapolis	IN
Aerospace NYLOK - a subsidiary of the NYLOK Fastener Corporation	200271-0	Hawthorne	NJ
AES International	200051-0	Santurce	PR
AGRA Earth & Environmental, Inc., PLM LAB	200444-0	Phoenix	AZ
AGX, Inc.	101578-0	Cranberry Township	PA
AHD	200129-0	Dowagiac	MI
Aires Consulting Group, Inc.	101014-0	Batavia	IL
AIResearch, Inc.	101868-0	Wauwatosa	WI
Airtek Environmental Corp.	102011-0	New York	NY
Akzo Kashima Ltd. Kakegawa EMC Test Site	100290-2	Shizuoka	JAPAN
Akzo Kashima Ltd., Kashima EMC Site	100290-0	Ibaraki	JAPAN
Akzo Kashima Ltd., Kawasaki Technical Center	200300-0	Kawasaki	JAPAN
Akzo Kashima Ltd., Matsuda EMC Test Site	100290-4	Kanagawa	JAPAN
Akzo Kashima Ltd., Nagano EMC Test Site	100290-3	Nagano	JAPAN
Akzo Kashima Ltd., Tochigi EMC Test Site	100290-5	Tochigi	JAPAN
ALAC	200323-0	New York	NY
Allegheny Asbestos Analysis	101704-0	Carnegie	PA
Alloy & Stainless Testing	200353-0	Virginia Beach	VA
Alpine Consulting, Inc.	102089-0	Colorado Springs	CO
AMA Analytical Services, Inc.	101143-0	Lanham	MD
Ambient Labs, Inc.	101618-0	New York	NY
AmerGen	100510-0	Middletown	PA

INDEX A. LISTING BY LABORATORY NAME - continued

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
American Asbestos Laboratories, Inc.	101775-0	Miami Lakes	FL
American Carpet Laboratories, Inc.	100139-0	Ringgold	GA
American Electric Power, Environmental Laboratory	102102-0	Columbus	OH
American Medical Laboratories, Inc.	101136-0	Chantilly	VA
American Testing Laboratories, Inc.	100146-0	Lancaster	PA
Analab, LLC	200260-0	Sterling	PA
Analytica Solutions, Inc.	101086-0	Broomfield	CO
Analytical Environmental Services, Inc.	102082-0	Atlanta	GA
Analytical Industries, Inc.	101855-0	Paducah	KY
Analytical Labs San Francisco, Inc.	101909-0	San Francisco	CA
Analytical Products Group, Inc.	200384-0	Belpre	OH
AnalyticaLab	101727-0	Willow Springs	IL
Aoyama Fastener Laboratory	200213-0	Niwa-gun, Aichi Prefecture	JAPAN
APA - The Engineered Wood Association Research Center	100423-0	Tacoma	WA
Apex Research, Inc.	102118-0	Whitmore Lake	MI
Apollo Environmental, Inc.	101871-0	Gibsonton	FL
Apple Computer, Inc., EMC Compliance Laboratory	200071-0	Cupertino	CA
Applied Environmental, Inc.	101611-0	Reston	VA
Architectural Testing Inc.	200361-0	York	PA
Arizona Public Service Co., Palo Verde Nuclear Generating Station	100536-0	Tonopah	AZ
Armstrong Acoustic Labs, Armstrong World Ind., Inc. Innov. Center	100228-0	Lancaster	PA
ASBESTECH	101442-0	Carmichael	CA
Asbestos Analysis and Information Service, Inc.	101261-0	Four Oaks	NC
Asbestos Consulting & Testing (ACT)	101649-0	Lenexa	KS
Asbestos TEM Laboratories, Inc.	101891-0	Berkeley	CA
Asbestos TEM Laboratories, Inc.	200104-0	Sparks	NV
ASC geosciences,inc.	200316-0	Lakeland	FL
Assaigai Analytical Laboratories, Inc.	101457-0	Albuquerque	NM
ATC Associates Inc.	101187-0	New York	NY
ATC Associates Inc.	200250-0	Columbia	MD
ATC Environmental, Inc.	102031-0	Englewood	CO
Athenica Environmental Services, Inc.	101958-0	Long Island City	NY
Atomic Energy Industrial Laboratory of the Southwest, Inc.	100556-0	Houston	TX
Audix TEchnology (Shanghai) Co., Ltd.	200371-0	Shanghai	CHINA
AUDIX Technology (Shenzhen) Co., Ltd.	200372-0	Shenzhen, Guangdong	CHINA
Aurora Consolidated Laboratories	101661-0	West Allis	WI
B			
Baltimore Gas & Electric Company	100501-0	Lusby	MD
Batta Laboratories, Inc.	101032-0	Newark	DE
Battelle - Pacific Northwest National Laboratory	200216-0	Richland	WA
Bay Area Air Quality Management District	102090-0	San Francisco	CA
Bay Area Compliance Laboratory, Corp.	200167-0	Sunnyvale	CA
BCAG Fastener Quality Test Lab Everett Site	200292-0	Seattle	WA
Beaulieu of America - Carpet Testing Lab	100190-0	Dalton	GA
Bechtel B&W Idaho, Standards and Calibration Lab	200115-0	Idaho Falls	ID

INDEX A. LISTING BY LABORATORY NAME - continued

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Belgo-Mineira Chemical Laboratory	200196-0	35.930-900 Joao Monlevade	BRAZIL
Beling Consultants, Inc.	101356-0	Moline	IL
Bell Laboratories, Division Lucent Technologies, Inc.	101965-0	Murray Hill	NJ
Bentley Testing Laboratory	100288-0	City of Industry	CA
Binder Metal Products, Inc.	200321-0	Gardena	CA
Bodycote Industrial Testing, Ltd.	101072-0	St. Louis	MO
Boeing - St. Louis Electromagnetic Compatibility Laboratory	200382-0	St. Louis	MO
Braun Intertec Corporation	101234-0	Minneapolis	MN
C			
CA Laboratories, L.L.C.	200452-0	Baton Rouge	LA
Cabletron Systems, Inc.	200121-0	Rochester	NH
California Screw Products	200183-0	Paramount	CA
CAM Environmental Services, Inc.	200240-0	Pasadena	TX
CAMCO Lab	101803-0	Fontana	CA
Cape Environmental Management, Inc.	102111-0	Atlanta	GA
Carnow, Conibear & Associates Ltd.	101039-0	Chicago	IL
Carolina Environmental, Inc.	101768-0	Cary	NC
Carolina Power & Light Company, Harris Energy & Enviro. Center	100517-0	New Hill	NC
Casey Products, Inc.	200278-0	Lisle	IL
CBS Fasteners, Inc.	200253-0	Anaheim	CA
CDRH X-Ray Calibration Laboratory	105018-0	Rockville	MD
Celestica International Inc.	200055-0	North York, Ontario	CANADA
Celotex Testing Services	100417-0	St. Petersburg	FL
Chatfield Technical Consulting Limited	101103-0	Mississauga Ontario	CANADA
Chemitox EMC Research, Inc.	200120-0	Yamanashi-ken	JAPAN
ChemScope, Inc.	101061-0	North Haven	CT
Chomerics Test Services (CTS)	100296-0	Woburn	MA
Chopra-Lee, Inc.	200095-0	Grand Island	NY
Chrisope Technologies, A Division of Remel	200388-0	Lake Charles	LA
Cisco Systems, Inc.	200114-0	San Jose	CA
City of Los Angeles Department of Water and Power	101111-0	Los Angeles	CA
City of San Jose, Materials Testing Laboratory	100325-0	San Jose	CA
Clark Seif Clark, Inc.	200324-0	Chatsworth	CA
Clayton Environmental Consultants	101106-0	Seattle	WA
Clayton Laboratory Services	101125-0	Kennesaw	GA
Clinton Power Station	100570-0	Clinton	IL
COACT Inc. CAFE Laboratory	200416-0	Columbia	MD
ComEd - TLD Processing Laboratory	100541-0	Wilmington	IL
Commercial Testing Company	100120-0	Dalton	GA
Communication Certification Laboratory	100272-0	Salt Lake City	UT
Compaq Computer Corp. EMC Test Facility	200078-0	Colorado Springs	CO
Compaq Computer Corp. Emissions Control Lab	200058-0	Houston	TX
Compaq Corporate Metrology	200154-0	Houston	TX
Compaq Regulatory Compliance Engineering - East	100413-0	Marlboro	MA
Compatible Electronics, Inc.	200063-0	Agoura	CA
Compliance Eng. Svces, Inc., Compliance Certification Services	200065-0	Sunnyvale	CA

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Compliance Test Laboratories, Inc.	200237-0	Liberty	SC
Composite Panel Association (CPA)	100418-0	Gaithersburg	MD
Comprehensive Health Services-Environmental Health PLM Laboratory	101759-0	Kennedy Space Center	FL
Con Edison - ChemLab	101558-0	Long Island City	NY
Con Edison, Indian Point	100538-0	Buchanan	NY
Concord Analysis, Inc.	101884-0	Chatsworth	CA
Continental Envirotech, Inc.	200080-0	Mesa	AZ
Converse Consultants MR, Inc.	102091-0	Reno	NV
Cooper Lighting - Metalux Research Laboratories	200050-0	Americus	GA
Cosmos Corporation	200151-0	Watarai-gun Mie	JAPAN
Covino Environmental Associates, Inc.	101781-0	Woburn	MA
Crisp Analytical Laboratory	200349-0	Carrollton	TX
Criterion Laboratories, Inc.	102046-0	Bensalem	PA
Criterion Technology	100396-0	Rollinsville	CO
CSA International	100322-0	Etobicoke Ontario	CANADA
CTL Environmental Services	101216-0	Harbor City	CA
Curtis-Straus LLC	200057-0	Littleton	MA
Cygnacom Solutions, Inc. CEAL and SEL Laboratories	200002-0	McLean	VA
D			
D.L.S. Electronic Systems, Inc.	100276-0	Wheeling	IL
D/L Laboratories, Inc.	100252-0	New York	NY
Dames & Moore, Inc.	101433-0	Salem	NH
DataChem Laboratories	101917-0	Cincinnati	OH
Davis & Floyd, Inc.	101410-0	Greenwood	SC
Daybrite Lighting (Genlyte Thomas Group) Photometric Laboratory	200016-0	Tupelo	MS
Dayton T. Brown, Inc.	200422-0	Bohemia	NY
DCM Science Laboratory, Inc.	101258-0	Wheat Ridge	CO
Dell Regulatory Test Laboratories	200052-0	Round Rock	TX
Denver Instrument Co. Weight Lab	200106-0	Arvada	CO
Design for Health Environmental Services	101864-0	San Diego	CA
Detroit Edison, Fermi 2 Dosimetry Laboratory	100529-0	Newport	MI
Dexter Fastener Technologies, Inc.	200144-0	Dexter	MI
DHMH-Air Quality Laboratory	101523-0	Baltimore	MD
Diviersified T.E.S.T. Technologies, Inc.	200340-0	Groton	NY
Dixon Information Inc.	101012-0	South Salt Lake	UT
Dodge-Regupol, Inc. Laboratory	200030-0	Lancaster	PA
Dolphin Environmental Consultants	102086-0	Stafford	TX
DOMUS ITSL, ecommerce+, LGS Group, Incorporated	200017-0	Ottawa Ontario	CANADA
Dove Environmental Corporation	102053-0	Miami	FL
Dow Chemical N. America Foam Products Research, Prod. Perf. Lab.	100103-0	Midland	MI
Duke Engineering and Services Environmental Laboratory	100524-0	Marlborough	MA
Duke Power Company Dosimetry Laboratory	100505-0	Charlotte	NC
Duquesne Light Company, Beaver Valley Power Station	100521-0	Shippingport	PA
Durkee Testing Laboratories, Inc.	200178-0	Paramount	CA

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Duro-Test Corporation	200283-0	Clifton	NJ
E			
E. M. Analytical, Inc.	101902-0	Dania	FL
EA Group	101019-0	Mentor	OH
EAI, Inc.	102114-0	Jersey City	NJ
Eastern Analytical Services, Inc.	101646-0	Elmsford	NY
Eastern Materials Testing Lab a division of Jaworski Geotech	100315-0	Berlin	CT
Eastman Kodak Co.-Regulatory Compliance Center-EMC Facility	200313-0	Rochester	NY
Eaton E3 Laboratory	100382-0	Southfield	MI
Eberline Dosimetry Service	100515-0	Albuquerque	NM
EcoSystems Environmental, Inc.	101162-0	Carrollton	TX
Electric Boat Corp/A General Dynamics Co.	100560-0	Groton	CT
Radiological Ctrl. Dept			
Electro Magnetic Test, Inc.	200147-0	Mountain View	CA
Electromagnetic Environmental Effects Laboratory	200431-0	El Segundo	CA
Electronic Compliance Laboratories, Inc.	200089-0	Sunnyvale	CA
Electronic Research & Service Organization/ITRI	200118-0	Chutung Hsinchu	TAIWAN
Electronics Test Centre	200282-0	Kanata, Ont.	CANADA
Electronics Testing Center, Taiwan	200133-0	Taoyuan Hsien	TAIWAN
Elite Electronic Engineering Inc.	100278-0	Downers Grove	IL
Elliott Laboratories, Inc.	200069-0	Sunnyvale	CA
EMC Compliance Mgmt Group, dba Turntech Scientific & Instr., Inc.	200068-0	Mountain View	CA
EMC Corporation	100339-0	Westboro	MA
EMC International, Inc.	200094-0	Youngsville	NC
EMC Kashima Corporation	200070-0	Chiba-ken	JAPAN
EMCE Engineering, Inc.	200092-0	Fremont	CA
EMM Office Yokohama Tech. Center Murata Mfg. Co., Ltd.	200263-0	Kanagawa	JAPAN
EMS Laboratories, Inc.	101218-0	Pasadena	CA
EMSL Analytical Inc. Bulk And Airborne Asbestos Fiber Analysis	200399-0	Chicago	IL
EMSL Analytical, Inc.	101048-0	Westmont	NJ
EMSL Analytical, Inc.	101048-1	Atlanta	GA
EMSL Analytical, Inc.	101048-2	Piscataway	NJ
EMSL Analytical, Inc.	101048-3	Milpitas	CA
EMSL Analytical, Inc.	101048-4	Ann Arbor	MI
EMSL Analytical, Inc.	101048-9	New York	NY
EMSL Analytical, Inc.	101048-10	Carle Place	NY
EMSL Analytical, Inc.	101151-0	Orlando	FL
EMSL Analytical, Inc.	102104-0	Greensboro	NC
EMSL Analytical, Inc.	102106-0	Houston	TX
EMSL Analytical, Inc.	200019-0	Minneapolis	MN
EMSL Analytical, Inc.	200034-0	Dallas	TX
EMSL Analytical, Inc.	200056-0	Williamsville	NY
EMSL Analytical, Inc.	200188-0	Indianapolis	IN
EMSL Analytical, Inc.	200204-0	N. Miami Beach	FL
EMSL Analytical, Inc.	200293-0	Beltsville	MD
EMSL Analytical, Inc.	200333-0	Elmsford	NY
EMSL Analytical, Inc.	200375-0	Baton Rouge	LA

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
ENCORP	200013-0	El Segundo	CA
Entergy Operations, Inc.	100535-0	Taft	LA
Enviro Techniques, Inc.	200024-0	Paterson	NJ
Enviro-Probe, Inc.	101222-0	Bronx	NY
EnviroHealth Technologies, Inc.	200374-0	St. Louis	MO
EnviroMed Services, Inc.	101514-0	New Haven	CT
Environmental Enterprise Group(EEG), Inc.	101587-0	Russellville	AR
Environmental Hazards Services, L.L.C.	101882-0	Richmond	VA
Environmental Health Laboratories	101506-0	Clayton	MO
Environmental Management Consultants, Inc.	101926-0	Scottsdale	AZ
Environmental Monitoring & Consulting Associates	101087-0	Somerville	NJ
Environmental Resource Associates (ERA)	200386-0	Arvada	CO
Environmental Science Services, Inc.	200424-0	Lockeford	CA
Environmental Services International, Inc.	101306-0	St. Albans	WV
Environmental Testing and Monitoring Services, Inc.	200131-0	Virginia Beach	VA
Environmental Testing Laboratories, Inc.	101937-0	Farmingdale	NY
Environmental Testing, Inc.	101848-0	Middletown	DE
EnvironMETeo Services Inc.	101807-0	Waipahu	HI
Envirotest, Inc.	101595-0	Houston	TX
ERI Consulting Engineers, Inc.	101232-0	Tyler	TX
ESG Laboratories	102029-0	Indianapolis	IN
F			
FabriSteel Products Inc.	200329-0	Taylor	MI
Fairfield Testing Laboratory, Inc.	100317-0	Stamford	CT
Fairway Testing Company, Inc.	100340-0	Stony Point	NY
Fastener Innovation Technology, Inc.	200179-0	Gardena	CA
Fiberquant, Inc.	101031-0	Phoenix	AZ
Fibertec, Inc.	101510-0	Holt	MI
Flexible Products Company	100210-0	Joliet	IL
Florida Power & Light Company	100544-0	Juno Beach	FL
Fluke Corporation Primary Standards Laboratory	105016-0	Everett	WA
Fluor Daniel Fernald, Inc., Analytical Laboratory Services	102010-0	Cincinnati	OH
Fong Preat Industrial Co., Ltd.	200288-0	Kaohsiung Hsien	TAIWAN
Forensic Analytical	101459-0	Hayward	CA
Forensic Analytical Specialties, Inc.	101459-1	Rancho Domingues	CA
Fountain Compliance Laboratory	200101-0	Somerset	NJ
Froehling & Robertson, Inc.	102060-0	Richmond	VA
FRS Geotech, Inc.	102078-0	Denver	CO
Fuji Buhin Kogyo Kabushiki Kaisha	200203-0	Ohta Gunma	JAPAN
Fuji Component Parts USA, Inc.	200180-0	Indianapolis	IN
Fujitsu Evaluation Engineering Laboratory	200281-0	Numazu, Shizuoka-Pref.	JAPAN
Fujitsu General EMC Laboratory	200373-0	Kawasaki	JAPAN
Fwu Kuang Enterprises Co., Ltd.	200286-0	Tainan Hsien	TAIWAN
G			
GA Environmental Services, Inc.	101996-0	Eddystone	PA
Galson Laboratories	101375-0	East Syracuse	NY
Garwood Laboratories, Inc.	200119-0	Placentia	CA
GE Industrial Systems	200029-0	Rome	NY
GE Lighting- Engineering Support - NA	100398-0	Cleveland	OH
GE Owensboro Test Laboratory	200305-0	Owensboro	KY

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Gelles Laboratories, Division, CC Technologies	101170-0	Dublin	OH
Genicom Corporation	200342-0	Waynesboro	VA
Georgia Power Company/Enviro. Affairs, Enviro. Lab-Dosimetry	100551-0	Smyrna	GA
Geoscience Ltd.	100142-0	San Diego	CA
Ginna Nuclear Station	100514-0	Ontario	NY
GLE Associates, Inc.	102003-0	Tampa	FL
Global EMC Standard Tech. Corp.	200085-0	Taipei County	TAIWAN
GTE Electronic Repair Services	200352-0	Fort Wayne	IN

H

Hadd-Co Inspection Lab	200326-0	Torrance	CA
Health Science Associates	101384-0	Los Alamitos	CA
Henry Troemner, LLC	105013-0	Thorofare	NJ
Hewlett Packard, Product Test Lab, San Diego	200138-0	San Diego	CA
Hi-Tech Environmental and Laboratory Services	102013-0	Cypress	CA
HIH Laboratory, Inc.	101233-0	Webster	TX
Hillmann Environmental Group, L.L.C.	101421-0	Union	NJ
Hitachi Information Technology Co., Ltd.	200186-0	Kanagawa	JAPAN
Hollytex Carpet Mills, Inc.	100247-0	Anadarko	OK
Holometrix - Micromet	100113-0	Bedford	MA
HomeTek Technology Inc.	200331-0	Taipei Shien	TAIWAN
Honeywell FM&T Metrology	200108-0	Kansas City	MO
Hub Testing Laboratory, Inc.	101045-0	Waltham	MA
Hubbell Lighting Photometric Laboratory	200020-0	Christiansburg	VA
Hufcor Laboratory	100239-0	Janesville	WI
Hygeia Laboratories Inc.	102116-0	Sierra Madre	CA
Hygeia Laboratories, Inc.	102087-0	Marietta	GA
Hygeia Laboratories, Inc.	200335-0	Miami	FL
HYGENIX, INC.	101199-0	Stamford	CT
Hygieneering, Inc.	101997-0	Willowbrook	IL
Hygienetics Laboratory Services	101147-0	Boston	MA

I

IBM Austin EMC	200112-0	Austin	TX
IBM Charlotte EMC Facility	200337-0	Charlotte	NC
IBM Endicott EMC Lab	200418-0	Endicott	NY
IBM Hudson Valley Acoustics Laboratory	100323-0	Poughkeepsie	NY
IBM Rochester EMC Lab	200091-0	Rochester	MN
IBM RTP PSG EMC Test Labs	200200-0	Research Triangle Park	NC
IBM Yamato EMC Engineering	200198-0	Yamato Kanagawa	JAPAN
ICN Worldwide Dosimetry Service, Div. of ICN Biomedicals, Inc.	100555-0	Costa Mesa	CA
IIT Research Institute/R&B Operation	100280-0	West Conshohocken	PA
ILX Lightwave Corporation, Optical Calibration	200211-0	Boulder	CO
Independent Materials Testing Laboratories, Inc.	100316-0	Plainville	CT
Independent Textile Testing Service, Inc.	100166-0	Dalton	GA
Industrial Acoustics Company, Inc., Aero-Acoustics Laboratory	100404-0	Bronx	NY

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Industrial Laboratory	102115-0	Portsmouth	VA
INEEL Materials Testing Lab CFA 602	200415-0	Idaho Falls	ID
InFocus Systems, Inc.	200152-0	Wilsonville	OR
InfoGard Laboratories, Inc.	100432-0	San Luis Obispo	CA
Ingersoll Fasteners	200208-0	Ingersoll Ontario	CANADA
Inland Foundation Engineering, Inc.	100406-0	San Jacinto	CA
Institute for Environmental Assessment	101249-0	Brooklyn Park	MN
Instron Force Calibration Laboratory	105023-0	Canton	MA
Instrument Specialties Co., Inc.	200076-0	Delaware Water Gap	PA
Integrex Testing Systems - Product Testing Laboratory	100109-0	Granville	OH
Integrity Design & Test Services, an Entela Company	200004-0	Littleton	MA
Interface Testing Laboratory	200402-0	LaGrange	GA
Intermec Technologies Corporation, Norand Mobile System Division	100269-0	Cedar Rapids	IA
International Asbestos Testing Laboratory	101165-0	Mt. Laurel	NJ
International Standards Laboratory	200234-0	Hsichih Chen, Taipei	TAIWAN
International Technology Company (ITC)	200172-0	Sunol	CA
Intertek Testing Services	200201-0	Menlo Park	CA
Intertek Testing Services NA Inc.	100270-0	Boxborough	MA
Intertek Testing Services NA Inc.	100274-0	Lexington	KY
Intertek Testing Services NA Inc.	100402-0	Cortland	NY
Intertek Testing Services NA Inc.	100409-0	Norcross	GA
Intertek Testing Services NA Inc.	200031-0	Middleton	WI
Intertek Testing Services NA Inc.	200297-0	Laguna Niguel	CA
Intertek Testing Services NA, Inc.	200049-0	Oakdale	MN
Iowa Environmental Services, Inc.	101990-0	Des Moines	IA
IPS Corporation	200012-0	Nagano	JAPAN
Ivaco Rolling Mills, Chemistry Laboratory	200143-0	L'Orignal Ontario	CANADA

J

J.W. Mfg. DBA Van Petty Mfg.	200225-0	Newbury Park	CA
Japan Quality Assurance Org. Chubu Testing Center Shikatsu Branch	200190-0	Aichi	JAPAN
Japan Quality Assurance Org. Safety Testing Ctr. Tsuru EMC Branch	200192-0	Yamanashi	JAPAN
Japan Quality Assurance Organization	200191-0	Osaka	JAPAN
Kita-Kansai Testing Center			
Japan Quality Assurance Organization Safety Testing Center	200189-0	Tokyo	JAPAN
Jimmie Ann Bolton	101735-0	Austin	TX
JLC Environmental Consultants, Inc.	101953-0	New York	NY
JMR Environmental Services Inc.	200067-0	San Diego	CA
JMS Environmental Associates, Ltd.	102012-0	Westmont	IL
Johns Manville Technical Center	100425-0	Littleton	CO

K

KAM Consultants	102047-0	Long Island City	NY
Kansai Electronic Industry Development Center, Ikoma Testing Lab.	200207-0	Ikoma Nara	JAPAN
Kelco Services, Inc.	101331-0	Hayward	CA
Kevco Services, Inc.	101941-0	Butler	PA
Key Tronic Corp.	200096-0	Spokane	WA
Kingston Environmental Laboratory	200041-0	Lee's Summit	MO

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Knauf Fiber Glass Research Laboratory	100248-0	Shelbyville	IN
Knoxville Branch Laboratory-TN Dept. Health	101496-0	Knoxville	TN
Kobelco Research Institute, Inc. Stock Company	200169-0	Kobe	JAPAN
Korea Testing & Research Inst. for Chemical Industry-Inchon Off.	200177-0	Inchon	KOREA
Korea Tokin EMC Engineering Co., Ltd.	200220-0	Namyangju-si, Kyunggi-Do	KOREA
KSL	200442-0	Mokelumne Hill	CA
KTL Dallas, Inc.	100426-0	Lewisville	TX
KTL Ottawa Inc.	100351-0	Ottawa Ontario	CANADA
Kyowa Kogyosyo Co., Ltd. Test Laboratory	200274-0	Komatsu City, Ishikawa	JAPAN
Kyushu Matsushita Electric Test Lab EMC Center	200364-0	Tosu-shi Saga-ken	JAPAN

L

LA Testing	200232-0	S. Pasadena	CA
Lab/Cor, Inc.	101920-0	Seattle	WA
Labcorp Analytics Laboratory	101004-0	Richmond	VA
Landauer, Inc.	100518-0	Glenwood	IL
Larron Laboratory	101415-0	Cape Girardeau	MO
Law Engineering and Environmental Services, Inc.	101066-0	Birmingham	AL
Law Engineering and Environmental Services, Inc.	101152-0	Houston	TX
Law Engineering and Environmental Services, Inc.	101226-0	Charlotte	NC
Law Engineering and Environmental Services, Inc.	101515-0	Tampa	FL
Law Engineering and Environmental Services, Inc.	101515-1	Miami Lakes	FL
Law Engineering and Environmental Services, Inc.	101973-0	Dallas	TX
Law Engineering and Environmental Services, Inc.	102035-0	Phoenix	AZ
Legend Technical Services, Inc.	102081-0	St. Paul	MN
Leland-Powell Fasteners, Inc. Fastener Testing Laboratory	200171-0	Martin	TN
Levecque Technical Center	100101-0	Blue Bell	PA
LEX Scientific Inc.	101949-0	Guelph Ontario	CANADA
LG Electronics, Inc., Quality and Reliability Center	200040-0	Seoul	KOREA
Liberty Labs, Inc.	200123-0	Kimballton	IA
Lithonia Testing Laboratories	200007-0	Conyers	GA
Lockheed Martin Control Systems EMI Laboratory	200142-0	Johnson City	NY
Los Angeles Harbor Department Testing Laboratory	102020-0	Wilmington	CA
Los Angeles Unified School District	101505-0	Los Angeles	CA
Louisiana Department of Environmental Quality Microanalytical Lab	102000-0	Baton Rouge	LA
Lucent Technologies, Global Product Compliance Lab	100275-0	Holmdel	NJ

M

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m.a.c. Paran Consulting Services, Inc.	102108-0	Amelia	OH
MAC Fasteners, Inc.	200141-0	Ottawa	KS
MacLean Fasteners - QC Laboratory	200153-0	Mundelein	IL
MACS Lab, Inc.	101948-0	Santa Clara	CA
Mallinckrodt, Inc.	100503-0	Maryland Heights	MO
Marathon Electric - Wausau Engineering Lab.	200134-0	Wausau	WI
Marconi Electronic Systems Environmental and EMC Test Centre	200304-0	Kent	UNITED KINGDOM
Marine Chemist Service, Inc.	101425-0	Newport News	VA
Materials Analytical Services, Inc.	101235-0	Suwanee	GA
Materials Testing, Inc.	100320-0	Milford	CT
Matsushita EMC Center	100428-0	Sasayama, Hyogo	JAPAN
McCall and Spero Environmental, Inc.	101895-0	Louisville	KY
McKee Environmental Health, Inc.	101135-0	Friendswood	TX
Meidoh Laboratory	200239-0	Toyota, Aichi	JAPAN
Met Laboratories Incorporated	200445-0	Union City	CA
MET Laboratories, Inc.	100273-0	Baltimore	MD
Metroplex Metrology Lab, Inc.	200262-0	Fort Worth	TX
Michael & Associates	100427-0	State College	PA
Micro Air of Texas, Inc.	102008-0	Houston	TX
Micro Air, Inc.	101221-0	Indianapolis	IN
Micro Analytical Laboratories, Inc.	101872-0	Emeryville	CA
Micro Analytical Laboratories, Inc.	200054-0	San Francisco	CA
Micro Analytical, Inc.	101247-0	Milwaukee	WI
Microcheck, Inc.	200391-0	Northfield Falls	VT
Micron Environmental Labs	200294-0	Arcadia	CA
Microscopic Analysis, Inc.	101037-0	St. Louis	MO
Midwest Laboratories, Inc.	101894-0	Countryside	IL
Minebea Co., Ltd. Fujisawa Manufacturing Unit	200229-0	Fujisawa, Kanagawa	JAPAN
Minnesota Metrology Laboratory	105003-0	St. Paul	MN
Modern Plating Corporation	200320-0	Freeport	IL
Mohawk Industries, Inc.- Lyerly Plant	100156-0	Lyerly	GA
Motorola EMC Test Services Lab	200005-0	Mansfield	MA
Motorola PPG Compliance Laboratory	200318-0	Boynton Beach	FL
Motorola SSG EMC/TEMPEST Laboratory	100405-0	Scottsdale	AZ
Mountain Laboratories	101890-0	Spokane	WA
Muranaka Environmental Consultants, Inc.	102085-0	Honolulu	HI
Mystic Air Quality Consultants, Inc.	101282-0	Groton	CT
N			
NAHB Research Center, Inc.	100104-0	Upper Marlboro	MD
NASA-Lewis Research Center	200130-0	Cleveland	OH
NATEC International, Inc.	101155-0	Garden Grove	CA
National Econ Corporation	102062-0	Tustin	CA
National Econ Corporation	200047-0	Memphis	TN
National Environmental Reference Laboratory	101593-0	Denver	CO
National Technical Systems	100347-0	Boxborough	MA
National Technical Systems	200245-0	Plano	TX
Naval Dosimetry Center	100504-0	Bethesda	MD
Naval Nuclear Propulsion Program Directorate, Washington, DC	100565-0	Bremerton	WA
NAWC AD 5.1.7.3. EMI Lab	100408-0	Patuxent River	MD
NAWC-Aircraft Div. Lakehurst Electromagnetic Interference Lab.	200222-0	Lakehurst	NJ

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NAWCWD EMI Lab, China Lake/Pt. Mugu, CA	200199-0	China Lake	CA
NCR Corp. San Diego EMC Lab	200383-0	San Diego	CA
NEC Kofu, Ltd., EMC Center	200433-0	Yamanashi-shi	JAPAN
Nemko EESI, Inc.	200116-0	San Diego	CA
NetCompliance Products & Services, Inc.	101869-0	Vancouver	WA
Neutron Engineering Inc.	200145-0	Taipei	TAIWAN
New York Testing Laboratories, Inc.	101332-0	Bay Shore	NY
Newport News Shipbuilding Radiological Control Department	100561-0	Newport News	VA
NGC Testing Services, National Gypsum Research Center	200291-0	Buffalo	NY
Niche Analysis, Inc.	102057-0	Mount Vernon	NY
Nortel Networks	100411-0	Santa Clara	CA
Nortel Networks BVW Lab	200098-0	Belleville, Ontario	CANADA
Northeast Utilities Dosimetry Laboratory	100540-0	Newington	CT
Northern Analytical Laboratories, Inc.	101292-0	Billings	MT
Northern Testing Laboratories, Inc.	101463-0	Fairbanks	AK
Northwest EMC, Inc.	200059-0	Hillsboro	OR
Northwestern Steel and Wire Company	200224-0	Sterling	IL
Nova Consulting Group, Inc.	101545-0	Chaska	MN
NOVA Machine Products	200202-0	Middleburg Heights	OH
Nowicki & Associates, Inc.	200322-0	Federal Way	WA
NSI Environmental Solutions, Inc.	200440-0	RTP	NC
NVL Laboratories, Inc.	102063-0	Seattle	WA
NY Environmental & Analytical Labs, Inc.	101967-0	Port Washington	NY
NYLOK Fastener Corporation	200272-0	Anaheim	CA
NYLOK Fastener Corporation	200273-0	Macomb	MI
NYLOK Fastener Corporation - Chicago Testing Laboratory	200275-0	Lincolnwood	IL
NYS DOH Environmental Laboratory Approval Program	200387-0	Albany	NY
O			
O & K Company Limited, Osaka Test Center	200166-0	Osaka-Shi	JAPAN
Oak Ridge Metrology Center	105000-0	Oak Ridge	TN
OCCU-TEC, Inc.	102025-0	Kansas City	MO
Occupational Health Conservation, Inc.	102050-0	Jacksonville	FL
Ohtama Co., Ltd. Yamanashi EMC Test Site	200175-0	Yamanashi	JAPAN
Okai Iron Works Co., Ltd.	200299-0	Izumisano Osaka	JAPAN
Okawa Laboratory	200296-0	Naka-gun, Ibaraki-ken	JAPAN
Oklahoma Dept. of Environmental Quality-State Environmental Lab	102112-0	Oklahoma City	OK
Omega Environmental Services	101289-0	Hackensack	NJ
Omni Environmental, Inc.	102061-0	Austin	TX
Orfield Laboratories, Inc.	200248-0	Minneapolis	MN
ORIX Rentec EMC Center; Electromagnetic Compatibility	200404-0	Aiko-Gun, Kanagawa	JAPAN
OSRAM SYLVANIA, Test & Measurements Laboratory	100403-0	Beverly	MA
P			
PA DEP Bureau of Laboratories	101323-0	Harrisburg	PA
Pace Analytical	101265-0	Indianapolis	IN
Pacific Gas & Electric Company, Diablo	100537-0	Avila Beach	CA

INDEX A. LISTING BY LABORATORY NAME - continued

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Canyon Nuclear Power Plant			
Pacific Northwest National Laboratory / Battelle	105020-0	Richland	WA
Pacific Rim Environmental, Inc.	101631-0	Tukwila	WA
Palmetto Laboratory, Inc.	102077-0	St. Petersburg	FL
Paradyne Corporation	200125-0	Largo	FL
Patriot Environmental Laboratory Services	200358-0	Garden Grove	CA
PB Fasteners	200139-0	Gardena	CA
PBS Environmental Building Consultants, Inc.	101910-0	Portland	OR
PCTEST Engineering Laboratory, Inc.	100431-0	Columbia	MD
PDE Laboratories	200082-0	San Clemente	CA
PEP Testing Laboratory	200097-0	Taipei Hsien	TAIWAN
PFS Corporation	100421-0	Madison	WI
PFU TECHNOCONSUL EMC Center	200259-0	Ishikawa-Ken	JAPAN
Philip Analytical Services	101262-0	Reading	PA
Philip Environmental Services Corp.	101192-0	Columbia	IL
Philips Electronics Industries (TAIWAN) Ltd.	200137-0	Chungli, Taoyuan	TAIWAN
Philips Lighting Corporate Calibration & Standards Laboratory	100399-0	Fairmont	WV
Philips Testing Service	200409-0	Knoxville	TN
Pinchin Environmental Ltd.	101270-0	Mississauga Ontario	CANADA
Piolax Inc.	200411-0	Mooka-shi Tochigi-ken	JAPAN
PMK Group, Inc.	101301-0	Kenilworth	NJ
Portsmouth ES&H Analytical	101383-0	Piketon	OH
PP&L, Inc.	100554-0	Allentown	PA
Pratt & Whitney Materials Control Laboratory	200336-0	East Hartford	CT
Prezant Associates, Inc.	101886-0	Seattle	WA
Professional Service Industries, Inc., Pittsburgh Test. Lab. Div.	100430-0	Eugene	OR
Professional Testing (EMI), Inc.	200062-0	Round Rock	TX
Professional Testing Laboratory, Inc.	100297-0	Dalton	GA
ProScience Analytical Services, Inc.	200090-0	Woburn	MA
Prospect Testing Labs, Inc.	200328-0	Des Plaines	IL
Protocol Analytical Supplies, Inc.	200395-0	Middlesex	NJ
Prottsa, S.A. de C.V.	200261-0	Mexico City	MEXICO
Proxtronics, Inc.	100573-0	Burke	VA
PSI	101350-0	Pittsburgh	PA
Puget Sound Naval Shipyard	101539-0	Bremerton	WA
PWC Environmental Laboratory, Pearl Harbor	200369-0	Pearl Harbor	HI
Q			
QuanTEM Laboratories, LLC	101959-0	Oklahoma City	OK
Quest Engineering Solutions, Inc.	200036-0	N. Billerica	MA
Quest MicroAnalytics	200249-0	Dallas	TX
Quietek Corporation	200347-0	Hsin-Chu Country	TAIWAN
R			
R & D Services, Inc.	200265-0	Cookeville	TN
R. Robinson Analytical Services, Inc.	102041-0	Pensacola	FL
Radiation Detection Company	100512-0	Sunnyvale	CA
Radiation Laboratory, Taiwan Power	100562-0	Shihmen, Taipei	TAIWAN

INDEX A. LISTING BY LABORATORY NAME - continued

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Company			
Rapid Environmental Management, Inc.	101974-0	Great Neck	NY
Raytheon Technical Services Co. EMI	200317-0	Indianapolis	IN
Laboratory			
RCM Laboratories, Inc.	101853-0	Countryside	IL
Republic Fastener Manufacturing	200195-0	Newbury Park	CA
Republic Technologies International,	200148-0	Johnstown	PA
Franklin Chemical Laboratory			
Reservoirs Environmental Services, Inc.	101896-0	Denver	CO
Resources, Applications, Designs & Control,	100261-0	Long Beach	CA
Inc. (RADCO)			
Retlif Testing Laboratories	100267-0	Ronkonkoma	NY
Retlif Testing Laboratories	100267-1	Goffstown	NH
Rhein Tech Laboratories, Inc.	200061-0	Herndon	VA
RI Analytical Laboratories, Inc.	101440-0	Warwick	RI
Rice Lake Weighing Systems	105001-0	Rice Lake	WI
Ricoh Company LTD. Ohmori Acoustics Test	200345-0	Tokyo	JAPAN
Site			
Ricoh Company, Ltd. Ohmori EMC Center	200163-0	Tokyo	JAPAN
Riverbank Acoustical Laboratories	100227-0	Geneva	IL
RJ Lee Group, Inc.	101208-0	Monroeville	PA
RJ Lee Group, Inc.	101208-2	San Leandro	CA
RJ Lee Group, Inc.	101208-3	Manassas	VA
Robbins Manufacturing Co., Inc.	200161-0	Fall River	MA
Rockford Bolt & Steel Co.	200255-0	Rockford	IL
Rocknel Fastener Inc.	200307-0	Rockford	IL
Rogers Labs, Inc.	200087-0	Louisburg	KS
Roy F. Weston, Inc.	101254-0	Auburn	AL
S			
Safe Environment of America, Inc.	102021-0	Kent	WA
San Joaquin Environmental, Inc.	102117-0	Fresno	CA
San Shing Hardware Works Co., Ltd. Test	200158-0	Tainan	TAIWAN
Laboratory			
Sanders A Lockheed Martin Co.	200425-0	Nashua	NH
Sandia National Laboratories	105002-0	Albuquerque	NM
Sannohashi Corporation	200205-0	Yashioshi, Saitama-ken	JAPAN
Saturn Fasteners, Inc.	200327-0	Burbank	CA
Schneider Laboratories, Inc.	101150-0	Richmond	VA
Scientific Laboratories, Inc.	101904-0	Midlothian	VA
Scientific Laboratories, Inc.	101904-1	New York	NY
SCILAB BOSTON, Inc.	102079-0	East Weymouth	MA
SCILAB California, Inc.	200346-0	Carson	CA
SE Laboratories	200338-0	Santa Clara	CA
SEAS, Inc.	101185-0	Blacksburg	VA
Seiko Epson Corporation	200157-0	Shiojiri-City Nagano	JAPAN
SGI EMC Laboratories	200233-0	Mountain View	CA
SGS U.S. Testing Company, Inc.	100416-0	Tulsa	OK
Shanghai Testing & Inspection Institute for	200407-0	Shanghai	CHINA
Electrical Equipment			
Shaw Industries, Inc., Central Laboratory	100193-0	Dalton	GA
Operations			
Small IAC Test Laboratory	200287-0	Peterborough, ON	CANADA
SNB Laboratory	200308-0	Cumberland	RI
Solar Environmental Services, Inc.	102006-0	Anchorage	AK

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Sony Electronics Inc. Product Quality Division EMC Group	200312-0	San Diego	CA
Sony Kisarazu EMC Test Laboratory	200432-0	Kisarazu Chiba	JAPAN
Sony Kohda EMC Test Laboratory	200398-0	Nukata-gun Aichi	JAPAN
Sony Minokamo EMC Site	200368-0	Gifu-Pref.	JAPAN
South Carolina Department of Health & Environmental Control	101572-0	Columbia	SC
South Coast Air Quality Management District	101567-0	Diamond Bar	CA
South Texas Project Dosimetry Laboratory	100519-0	Wadsworth	TX
Southern California Edison	100506-0	San Clemente	CA
Southern California Edison Company	105014-0	Westminster	CA
Special Testing Laboratories, Inc.	100308-0	Bethel	CT
Spectrum Research & Testing Laboratory, Inc.	200099-0	Chung-Li, Taoyuan	TAIWAN
Spex Certiprep Inc.	200392-0	Metuchen	NJ
Sporton International, Inc.	200079-0	Taipei Hsien	TAIWAN
SPS Technologies Aerospace Product Division	200298-0	Santa Ana	CA
St. of California, Bur. of Home Furnishings & Thermal Insulation	100251-0	North Highlands	CA
STAT Analysis Corporation	101202-0	Chicago	IL
State of Connecticut	101237-0	Hartford	CT
State of Virginia Metrology Lab	105007-0	Richmond	VA
STERIS-Isomedix Services	200235-0	Morton Grove	IL
Steve Moody Micro Services, Inc.	102056-0	Carrollton	TX
Storagtek Open Area Test Site	200251-0	Louisville	CO
Stork-Twin City Testing Corporation	200046-0	St. Paul	MN
STS Consultants, Ltd.	100191-0	Vernon Hills	IL
Sumitomo Metal Technology, Inc. Kokura Division	200215-0	Kitakyushu	JAPAN
Sun City Analytical, Inc.	101870-0	El Paso	TX
Sun Microsystems, Inc. EMC Testing	200363-0	Palo Alto	CA
Sundram Fasteners Limited (Inhouse test laboratory)	200212-0	Chennai (Madras), Tamil, Nadh	INDIA
Sundram Fasteners Limited Chemical Testing Laboratory	200256-0	Andhra Pradesh	INDIA
T			
Taiwan Tokin EMC Eng. Corp.	200077-0	Taipei	TAIWAN
TAO/TA2 EMC Laboratory	200140-0	Taoyuan	TAIWAN
Taylor Environmental Group, Inc.	102101-0	Floral Park	NY
TC Analytics, Inc.	101672-0	Norfolk	VA
TDK Corporation's 10m Anechoic Chamber	200309-0	Ichikawa-shi, Chiba-ken	JAPAN
TDK Corporation's Chikumagawa Open Site	200319-0	Saku-shi, Nagano-ken	JAPAN
TEAC Corporation EMC Center	200362-0	Saitama-ken	JAPAN
TECO Electric & Machinery Co., Ltd.	200378-0	Taoyuan	TAIWAN
TEM, Incorporated	101130-0	Glen Ellyn	IL
Tennessee Valley Authority External Dosimetry Service	100516-0	Soddy-Daisy	TN
Test Site Services, Inc.	100419-0	Marlboro	MA
Test-Con Incorporated	200018-0	Danbury	CT
Testing Mechanics Corp.	102001-0	Seaford	NY
Testwell Laboratories, Inc./Testwell Industries, Inc.	200083-0	Ossining	NY
The Monadnock Company	200268-0	City of Industry	CA

INDEX A. LISTING BY LABORATORY NAME - continued

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
The Scott Lawson Group, Ltd.	101228-0	Concord	NH
Timberco, Inc.- dba TECO	100420-0	Eugene	OR
Tokin EMC Engineering Co., Ltd. Kawasaki Facility	200217-0	Kawasaki-city, Kanagawa	JAPAN
Tokin EMC Engineering Co., Ltd. Nagoya Testing Laboratory	200219-0	Daian-cho, Inabe-gun, Mie	JAPAN
Tokin EMC Engineering Co., Ltd. Osaka Testing Laboratory	200218-0	Sanda-city, Hyogo	JAPAN
Tokin EMC Engineering Co., Ltd. Tsukuba Testing Laboratory	200221-0	Tsukuba-city, Ibaraki	JAPAN
TolTest, Inc.	101594-0	Toledo	OH
Toshiba Corp., Ome Operations	200107-0	Ome Tokyo	JAPAN
Toshiba/Houston Test Laboratory	200088-0	Houston	TX
Training Research Co., Ltd.	200174-0	Taipei Hsien	TAIWAN
TRC Environmental Corporation	101424-0	Windsor	CT
Tremco, Inc. - Roofing Division, An RPM Company	101188-0	Beachwood	OH
Tri-State Materials Testing Lab, Inc.	200010-0	Wallingford	CT
Triad Environmental Consulting, Inc.	102073-0	Huntington	WV
Troxler Radiation Monitoring Svc. a div. of Troxler Elect. Labs	100559-0	Research Triangle Park	NC
TSi, Testing Services, Inc.	100108-0	Dalton	GA
TU Electric-Comanche Peak Steam Electric Station	100528-0	Glen Rose	TX
TUV Product Service, Inc.	100268-0	San Diego	CA
TUV Product Service, Inc.	100271-0	New Brighton	MN
TUV Product Service, Inc.	100271-1	Boulder	CO
TUV Rheinland of North America, Inc.	200111-0	Newtown	CT
TUV Telecom Services, Inc.	200039-0	St. Paul	MN
Twin Ports Testing, Inc.	102083-0	Superior	WI
TWN Fastener, Inc.	200194-0	Bowling Green	KY

U

U.S. Army Center for Health Promotion and Preventive Medicine	200044-0	Aberdeen Proving Ground	MD
U.S. Army Primary Standards Laboratory	105004-0	Redstone Arsenal	AL
U.S. Army Radiation Standards & Dosimetry Laboratory	100539-0	Redstone Arsenal	AL
U.S. EPA	200231-0	Las Vegas	NV
U.S. EPA - National Enforcement Investigations Center	101703-0	Denver	CO
Ultra Scientific, Inc.	200379-0	North Kingston	RI
UltraTech Engineering Labs Inc.	200093-0	Oakville, Ontario	CANADA
Underwriters Laboratories	200252-0	Santa Clara	CA
Underwriters Laboratories Inc.	100414-0	Northbrook	IL
Underwriters Laboratories Inc.	200214-0	Camas	WA
Underwriters Laboratories, Inc.	100255-0	Melville	NY
Underwriters Laboratories, Inc.	200246-0	Research Triangle Park	NC
Union Electric Company, Callaway Plant	100502-0	Fulton	MO
United Analytical Services, Inc.	101732-0	Downers Grove	IL
United States Dosimetry Technology, Inc.	100571-0	Richland	WA
United States Technologies, Inc.	200162-0	Alpharetta	GA
United Steel and Fasteners Inc.	200341-0	Itasca	IL
United Testing Sys. Canada, Ltd. Dynamic Testing Sys. Int. Inc.	200311-0	Concord Ontario	CANADA

INDEX A. LISTING BY LABORATORY NAME - continued

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Universal Compliance Laboratories	200117-0	San Jose	CA
University (State) Hygienic Laboratory	101288-0	Iowa City	IA
University of Alabama Asbestos Laboratory	102005-0	Tuscaloosa	AL
US Air Force Center for Radiation Dosimetry	100548-0	Brooks AFB	TX
USG Research-Systems Evaluation Laboratory	200132-0	Libertyville	IL
V			
Vartest Laboratories, Inc.	200027-0	New York	NY
Vermont Fasteners Manufacturing	200254-0	Swanton	VT
Vibro-Acoustics Laboratory	100424-0	Scarborough Ontario	CANADA
VLSI Standards, Inc.	200302-0	San Jose	CA
Volz Environmental Services, Inc.	101269-0	Pittsburgh	PA
W			
W.R. Grace & Co.	200258-0	Cambridge	MA
Walker Bolt Manufacturing Co.	200126-0	Houston	TX
Washington Laboratories, Ltd.	200066-0	Gaithersburg	MD
Waste Management Federal Services of Hanford, Inc.	101058-0	Richland	WA
Water, Earth Solutions & Technologies, Inc.	102043-0	Dallas	TX
Wayne Langston, Inc.	200021-0	League City	TX
Webber Gage Division / L.S. Starrett Co.	200038-0	Cleveland	OH
Western Analytical Laboratory	200037-0	Burbank	CA
Western Electro-Acoustic Lab., Inc.	100256-0	Santa Monica	CA
White Environmental Consultants Inc.	200124-0	Anchorage	AK
White Environmental Consultants, Inc.	200350-0	Honolulu	HI
Willamette Industries, Inc. West Coast Development Lab	200045-0	Wilsonville	OR
Windermere Info. Tech. Sys.	200084-0	Annapolis	MD
Military/Commercial Compliance Lab.			
Wisconsin Occupational Health Laboratory	101109-0	Madison	WI
WKP Laboratories, Inc.	101950-0	New York City	NY
Wolverine Plating Corp.	200230-0	Roseville	MI
Wonder Makers Environmental, Inc.	102065-0	Kalamazoo	MI
Z			
Zacta Technology Corporation Yonezawa Testing Center	200306-0	Yonezawa-shi Yamagata	JAPAN

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B

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INDEX B. LISTING BY FIELD OF ACCREDITATION

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
CALIBRATION LABORATORIES GROUP			
<i>Dimensional</i>			
Bechtel B&W Idaho, Standards and Calibration Lab	200115-0	Idaho Falls	ID
Honeywell FM&T Metrology	200108-0	Kansas City	MO
Metroplex Metrology Lab, Inc.	200262-0	Fort Worth	TX
Minnesota Metrology Laboratory	105003-0	St. Paul	MN
Oak Ridge Metrology Center	105000-0	Oak Ridge	TN
Sandia National Laboratories	105002-0	Albuquerque	NM
Southern California Edison Company	105014-0	Westminster	CA
State of Virginia Metrology Lab	105007-0	Richmond	VA
United Testing Sys. Canada, Ltd. Dynamic Testing Sys. Int. Inc.	200311-0	Concord Ontario	CANADA
VLSI Standards, Inc.	200302-0	San Jose	CA
Webber Gage Division / L.S. Starrett Co.	200038-0	Cleveland	OH
<i>Electromagnetics - DC/Low Frequency</i>			
Bechtel B&W Idaho, Standards and Calibration Lab	200115-0	Idaho Falls	ID
Compaq Corporate Metrology	200154-0	Houston	TX
Fluke Corporation Primary Standards Laboratory	105016-0	Everett	WA
GE Industrial Systems	200029-0	Rome	NY
GTE Electronic Repair Services	200352-0	Fort Wayne	IN
Sandia National Laboratories	105002-0	Albuquerque	NM
SE Laboratories	200338-0	Santa Clara	CA
Southern California Edison Company	105014-0	Westminster	CA
U.S. Army Primary Standards Laboratory	105004-0	Redstone Arsenal	AL
<i>Electromagnetics - RF/Microwave</i>			
Compaq Corporate Metrology	200154-0	Houston	TX
Honeywell FM&T Metrology	200108-0	Kansas City	MO
IPS Corporation	200012-0	Nagano	JAPAN
Liberty Labs, Inc.	200123-0	Kimballton	IA
Sandia National Laboratories	105002-0	Albuquerque	NM
SE Laboratories	200338-0	Santa Clara	CA
U.S. Army Primary Standards Laboratory	105004-0	Redstone Arsenal	AL
<i>Ionizing Radiation</i>			
CDRH X-Ray Calibration Laboratory	105018-0	Rockville	MD
Pacific Northwest National Laboratory / Battelle	105020-0	Richland	WA
Sandia National Laboratories	105002-0	Albuquerque	NM
STERIS-Isomedix Services	200235-0	Morton Grove	IL
U.S. Army Primary Standards Laboratory	105004-0	Redstone Arsenal	AL
<i>Mechanical</i>			
Denver Instrument Co. Weight Lab	200106-0	Arvada	CO
Henry Troemner, LLC	105013-0	Thorofare	NJ
Honeywell FM&T Metrology	200108-0	Kansas City	MO
Instron Force Calibration Laboratory	105023-0	Canton	MA
Minnesota Metrology Laboratory	105003-0	St. Paul	MN
Oak Ridge Metrology Center	105000-0	Oak Ridge	TN

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Rice Lake Weighing Systems	105001-0	Rice Lake	WI
Sandia National Laboratories	105002-0	Albuquerque	NM
Southern California Edison Company	105014-0	Westminster	CA
State of Virginia Metrology Lab	105007-0	Richmond	VA
United Testing Sys. Canada, Ltd. Dynamic Testing Sys. Int. Inc.	200311-0	Concord Ontario	CANADA

Optical Radiation

ILX Lightwave Corporation, Optical Calibration	200211-0	Boulder	CO
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Thermodynamic

Fluke Corporation Primary Standards Laboratory	105016-0	Everett	WA
GE Industrial Systems	200029-0	Rome	NY
Minnesota Metrology Laboratory	105003-0	St. Paul	MN
Oak Ridge Metrology Center	105000-0	Oak Ridge	TN
Sandia National Laboratories	105002-0	Albuquerque	NM
State of Virginia Metrology Lab	105007-0	Richmond	VA
U.S. Army Primary Standards Laboratory	105004-0	Redstone Arsenal	AL

Time & Frequency

Bechtel B&W Idaho, Standards and Calibration Lab	200115-0	Idaho Falls	ID
Compaq Corporate Metrology	200154-0	Houston	TX
Fluke Corporation Primary Standards Laboratory	105016-0	Everett	WA
Honeywell FM&T Metrology	200108-0	Kansas City	MO
Oak Ridge Metrology Center	105000-0	Oak Ridge	TN
Sandia National Laboratories	105002-0	Albuquerque	NM
SE Laboratories	200338-0	Santa Clara	CA
State of Virginia Metrology Lab	105007-0	Richmond	VA
U.S. Army Primary Standards Laboratory	105004-0	Redstone Arsenal	AL

CHEMICAL CALIBRATION GROUP
Providers of Proficiency Testing

Absolute Standards, Inc.	200390-0	Hamden	CT
AccuStandard, Inc.	200389-0	New Haven	CT
Analytical Products Group, Inc.	200384-0	Belpre	OH
Chrisope Technologies, A Division of Remel	200388-0	Lake Charles	LA
Environmental Resource Associates (ERA)	200386-0	Arvada	CO
Microcheck, Inc.	200391-0	Northfield Falls	VT
NSI Environmental Solutions, Inc.	200440-0	RTP	NC
NYS DOH Environmental Laboratory Approval Program	200387-0	Albany	NY
Protocol Analytical Supplies, Inc.	200395-0	Middlesex	NJ
Spex Certiprep Inc.	200392-0	Metuchen	NJ
Ultra Scientific, Inc.	200379-0	North Kingston	RI

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
COMPUTER/ELECTRONICS GROUP			
<i>Cryptographic Modules Testing</i>			
COACT Inc. CAFE Laboratory	200416-0	Columbia	MD
Cygnacom Solutions, Inc. CEAL and SEL Laboratories	200002-0	McLean	VA
DOMUS ITSL, ecommerce+, LGS Group, Incorporated	200017-0	Ottawa Ontario	CANADA
InfoGard Laboratories, Inc.	100432-0	San Luis Obispo	CA
<i>Federal Communications Commission (FCC) Methods</i>			
3M Product Safety EMC Laboratory	200033-0	St. Paul	MN
A-Pex International Co., Ltd. Yamakita Laboratory	200441-0	Ashigarakami-gun	JAPAN
A-Pex International Co., Ltd. Yokowa Laboratory	200109-0	Mie-ken	JAPAN
Advance Data Technology Corporation	200102-0	Taipei Hsien	TAIWAN
Advance Data Technology Corporation Hsin Chu EMC Laboratory	200376-0	Hsin Chu Hsien	TAIWAN
AHD	200129-0	Dowagiac	MI
Akzo Kashima Ltd. Kakegawa EMC Test Site	100290-2	Shizuoka	JAPAN
Akzo Kashima Ltd., Kashima EMC Site	100290-0	Ibaraki	JAPAN
Akzo Kashima Ltd., Kawasaki Technical Center	200300-0	Kawasaki	JAPAN
Akzo Kashima Ltd., Matsuda EMC Test Site	100290-4	Kanagawa	JAPAN
Akzo Kashima Ltd., Nagano EMC Test Site	100290-3	Nagano	JAPAN
Akzo Kashima Ltd., Tochigi EMC Test Site	100290-5	Tochigi	JAPAN
Analab, LLC	200260-0	Sterling	PA
Apple Computer, Inc., EMC Compliance Laboratory	200071-0	Cupertino	CA
Audix TEchnology (Shanghai) Co., Ltd.	200371-0	Shanghai	CHINA
AUDIX Technology (Shenzhen) Co., Ltd.	200372-0	Shenzhen, Guangdong	CHINA
Bay Area Compliance Laboratory, Corp.	200167-0	Sunnyvale	CA
Cabletron Systems, Inc.	200121-0	Rochester	NH
Celestica International Inc.	200055-0	North York, Ontario	CANADA
Chemitox EMC Research, Inc.	200120-0	Yamanashi-ken	JAPAN
Chomerics Test Services (CTS)	100296-0	Woburn	MA
Cisco Systems, Inc.	200114-0	San Jose	CA
Communication Certification Laboratory	100272-0	Salt Lake City	UT
Compaq Computer Corp. EMC Test Facility	200078-0	Colorado Springs	CO
Compaq Computer Corp. Emissions Control Lab	200058-0	Houston	TX
Compaq Regulatory Compliance Engineering - East	100413-0	Marlboro	MA
Compatible Electronics, Inc.	200063-0	Agoura	CA
Compliance Eng. Svces, Inc., Compliance Certification Services	200065-0	Sunnyvale	CA
Compliance Test Laboratories, Inc.	200237-0	Liberty	SC
Cosmos Corporation	200151-0	Watarai-gun Mie	JAPAN
Criterion Technology	100396-0	Rollinsville	CO
CSA International	100322-0	Etobicoke Ontario	CANADA
Curtis-Straus LLC	200057-0	Littleton	MA
D.L.S. Electronic Systems, Inc.	100276-0	Wheeling	IL

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Dell Regulatory Test Laboratories	200052-0	Round Rock	TX
Diviersified T.E.S.T. Technologies, Inc.	200340-0	Groton	NY
Eastman Kodak Co.-Regulatory Compliance Center-EMC Facility	200313-0	Rochester	NY
Electro Magnetic Test, Inc.	200147-0	Mountain View	CA
Electronic Compliance Laboratories, Inc.	200089-0	Sunnyvale	CA
Electronic Research & Service Organization/ITRI	200118-0	Chutung Hsinchu	TAIWAN
Electronics Test Centre	200282-0	Kanata, Ont.	CANADA
Electronics Testing Center, Taiwan	200133-0	Taoyuan Hsien	TAIWAN
Elite Electronic Engineering Inc.	100278-0	Downers Grove	IL
Elliott Laboratories, Inc.	200069-0	Sunnyvale	CA
EMC Compliance Mgmt Group, dba Turntech Scientific & Instr., Inc.	200068-0	Mountain View	CA
EMC Corporation	100339-0	Westboro	MA
EMC International, Inc.	200094-0	Youngsville	NC
EMC Kashima Corporation	200070-0	Chiba-ken	JAPAN
EMCE Engineering, Inc.	200092-0	Fremont	CA
EMM Office Yokohama Tech. Center Murata Mfg. Co., Ltd.	200263-0	Kanagawa	JAPAN
Fountain Compliance Laboratory	200101-0	Somerset	NJ
Fujitsu Evaluation Engineering Laboratory	200281-0	Numazu, Shizuoka-Pref.	JAPAN
Fujitsu General EMC Laboratory	200373-0	Kawasaki	JAPAN
Garwood Laboratories, Inc.	200119-0	Placentia	CA
Genicom Corporation	200342-0	Waynesboro	VA
Global EMC Standard Tech. Corp.	200085-0	Taipei County	TAIWAN
Hewlett Packard, Product Test Lab, San Diego	200138-0	San Diego	CA
Hitachi Information Technology Co., Ltd.	200186-0	Kanagawa	JAPAN
HomeTek Technology Inc.	200331-0	Taipei Shien	TAIWAN
IBM Austin EMC	200112-0	Austin	TX
IBM Charlotte EMC Facility	200337-0	Charlotte	NC
IBM Endicott EMC Lab	200418-0	Endicott	NY
IBM Rochester EMC Lab	200091-0	Rochester	MN
IBM RTP PSG EMC Test Labs	200200-0	Research Triangle Park	NC
IBM Yamato EMC Engineering	200198-0	Yamato Kanagawa	JAPAN
IIT Research Institute/R&B Operation	100280-0	West Conshohocken	PA
InFocus Systems, Inc.	200152-0	Wilsonville	OR
Instrument Specialties Co., Inc.	200076-0	Delaware Water Gap	PA
Integrity Design & Test Services, an Entela Company	200004-0	Littleton	MA
Intermec Technologies Corporation, Norand Mobile System Division	100269-0	Cedar Rapids	IA
International Standards Laboratory	200234-0	Hsichih Chen, Taipei	TAIWAN
International Technology Company (ITC)	200172-0	Sunol	CA
Intertek Testing Services	200201-0	Menlo Park	CA
Intertek Testing Services NA Inc.	100270-0	Boxborough	MA
Intertek Testing Services NA Inc.	100274-0	Lexington	KY
Intertek Testing Services NA Inc.	100409-0	Norcross	GA
Intertek Testing Services NA Inc.	200297-0	Laguna Niguel	CA
Intertek Testing Services NA, Inc.	200049-0	Oakdale	MN
IPS Corporation	200012-0	Nagano	JAPAN

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Japan Quality Assurance Org. Chubu Testing Center Shikatsu Branch	200190-0	Aichi	JAPAN
Japan Quality Assurance Org. Safety Testing Ctr. Tsuru EMC Branch	200192-0	Yamanashi	JAPAN
Japan Quality Assurance Organization Kita-Kansai Testing Center	200191-0	Osaka	JAPAN
Japan Quality Assurance Organization Safety Testing Center	200189-0	Tokyo	JAPAN
Kansai Electronic Industry Development Center, Ikoma Testing Lab.	200207-0	Ikoma Nara	JAPAN
Key Tronic Corp.	200096-0	Spokane	WA
Korea Tokin EMC Engineering Co., Ltd.	200220-0	Namyangju-si, Kyunggi-Do	KOREA
KTL Dallas, Inc.	100426-0	Lewisville	TX
KTL Ottawa Inc.	100351-0	Ottawa Ontario	CANADA
Kyushu Matsushita Electric Test Lab EMC Center	200364-0	Tosu-shi Saga-ken	JAPAN
LG Electronics, Inc., Quality and Reliability Center	200040-0	Seoul	KOREA
Lucent Technologies, Global Product Compliance Lab	100275-0	Holmdel	NJ
Matsushita EMC Center	100428-0	Sasayama, Hyogo	JAPAN
Met Laboratories Incorporated	200445-0	Union City	CA
MET Laboratories, Inc.	100273-0	Baltimore	MD
Motorola EMC Test Services Lab	200005-0	Mansfield	MA
Motorola PPG Compliance Laboratory	200318-0	Boynton Beach	FL
Motorola SSG EMC/TEMPEST Laboratory	100405-0	Scottsdale	AZ
National Technical Systems	200245-0	Plano	TX
NCR Corp. San Diego EMC Lab	200383-0	San Diego	CA
NEC Kofu, Ltd., EMC Center	200433-0	Yamanashi-shi	JAPAN
Nemko EESI, Inc.	200116-0	San Diego	CA
Neutron Engineering Inc.	200145-0	Taipei	TAIWAN
Nortel Networks	100411-0	Santa Clara	CA
Nortel Networks BVW Lab	200098-0	Belleville, Ontario	CANADA
Northwest EMC, Inc.	200059-0	Hillsboro	OR
Ohtama Co., Ltd. Yamanashi EMC Test Site	200175-0	Yamanashi	JAPAN
ORIX Rentec EMC Center; Electromagnetic Compatibility	200404-0	Aiko-Gun, Kanagawa	JAPAN
Paradyne Corporation	200125-0	Largo	FL
PCTEST Engineering Laboratory, Inc.	100431-0	Columbia	MD
PDE Laboratories	200082-0	San Clemente	CA
PEP Testing Laboratory	200097-0	Taipei Hsien	TAIWAN
PFU TECHNOCONSUL EMC Center	200259-0	Ishikawa-Ken	JAPAN
Philips Electronics Industries (TAIWAN) Ltd.	200137-0	Chungli, Taoyuan	TAIWAN
Philips Testing Service	200409-0	Knoxville	TN
Professional Testing (EMI), Inc.	200062-0	Round Rock	TX
Quest Engineering Solutions, Inc.	200036-0	N. Billerica	MA
Quietek Corporation	200347-0	Hsin-Chu Country	TAIWAN
Retlif Testing Laboratories	100267-0	Ronkonkoma	NY
Retlif Testing Laboratories	100267-1	Goffstown	NH
Rhein Tech Laboratories, Inc.	200061-0	Herndon	VA
Ricoh Company, Ltd. Ohmori EMC Center	200163-0	Tokyo	JAPAN

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Rogers Labs, Inc.	200087-0	Louisburg	KS
Seiko Epson Corporation	200157-0	Shiojiri-City Nagano	JAPAN
S&G EMC Laboratories	200233-0	Mountain View	CA
Sony Electronics Inc. Product Quality Division EMC Group	200312-0	San Diego	CA
Sony Kisarazu EMC Test Laboratory	200432-0	Kisarazu Chiba	JAPAN
Sony Kohda EMC Test Laboratory	200398-0	Nukata-gun Aichi	JAPAN
Sony Minokamo EMC Site	200368-0	Gifu-Pref.	JAPAN
Spectrum Research & Testing Laboratory, Inc.	200099-0	Chung-Li, Taoyuan	TAIWAN
Sporton International, Inc.	200079-0	Taipei Hsien	TAIWAN
Storagtek Open Area Test Site	200251-0	Louisville	CO
Sun Microsystems, Inc. EMC Testing	200363-0	Palo Alto	CA
Taiwan Tokin EMC Eng. Corp.	200077-0	Taipei	TAIWAN
TAO/TA2 EMC Laboratory	200140-0	Taoyuan	TAIWAN
TDK Corporation's 10m Anechoic Chamber	200309-0	Ichikawa-shi, Chiba-ken	JAPAN
TDK Corporation's Chikumagawa Open Site	200319-0	Saku-shi, Nagano-ken	JAPAN
TEAC Corporation EMC Center	200362-0	Saitama-ken	JAPAN
Test Site Services, Inc.	100419-0	Marlboro	MA
Tokin EMC Engineering Co., Ltd. Kawasaki Facility	200217-0	Kawasaki-city, Kanagawa	JAPAN
Tokin EMC Engineering Co., Ltd. Nagoya Testing Laboratory	200219-0	Daian-cho, Inabe-gun, Mie	JAPAN
Tokin EMC Engineering Co., Ltd. Osaka Testing Laboratory	200218-0	Sanda-city, Hyogo	JAPAN
Tokin EMC Engineering Co., Ltd. Tsukuba Testing Laboratory	200221-0	Tsukuba-city, Ibaraki	JAPAN
Toshiba Corp., Ome Operations	200107-0	Ome Tokyo	JAPAN
Training Research Co., Ltd.	200174-0	Taipei Hsien	TAIWAN
TUV Product Service, Inc.	100268-0	San Diego	CA
TUV Product Service, Inc.	100271-0	New Brighton	MN
TUV Product Service, Inc.	100271-1	Boulder	CO
TUV Rheinland of North America, Inc.	200111-0	Newtown	CT
TUV Telecom Services, Inc.	200039-0	St. Paul	MN
UltraTech Engineering Labs Inc.	200093-0	Oakville, Ontario	CANADA
Underwriters Laboratories	200252-0	Santa Clara	CA
Underwriters Laboratories Inc.	100414-0	Northbrook	IL
Underwriters Laboratories Inc.	200214-0	Camas	WA
Underwriters Laboratories, Inc.	100255-0	Melville	NY
Underwriters Laboratories, Inc.	200246-0	Research Triangle Park	NC
United States Technologies, Inc.	200162-0	Alpharetta	GA
Universal Compliance Laboratories	200117-0	San Jose	CA
Washington Laboratories, Ltd.	200066-0	Gaithersburg	MD
Wayne Langston, Inc.	200021-0	League City	TX
Windermere Info. Tech. Sys.	200084-0	Annapolis	MD
Military/Commercial Compliance Lab.			
Zacta Technology Corporation Yonezawa Testing Center	200306-0	Yonezawa-shi Yamagata	JAPAN
MIL-STD-462 Test Methods			
Boeing - St. Louis Electromagnetic Compatibility Laboratory	200382-0	St. Louis	MO
Dayton T. Brown, Inc.	200422-0	Bohemia	NY

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Eaton E3 Laboratory	100382-0	Southfield	MI
Electromagnetic Environmental Effects Laboratory	200431-0	El Segundo	CA
Elite Electronic Engineering Inc.	100278-0	Downers Grove	IL
IIT Research Institute/R&B Operation	100280-0	West Conshohocken	PA
Intertek Testing Services NA Inc.	100270-0	Boxborough	MA
Lockheed Martin Control Systems EMI Laboratory	200142-0	Johnson City	NY
Marconi Electronic Systems Environmental and EMC Test Centre	200304-0	Kent	UNITED KINGDOM
Motorola SSG EMC/TEMPEST Laboratory	100405-0	Scottsdale	AZ
National Technical Systems	100347-0	Boxborough	MA
NAWC AD 5.1.7.3. EMI Lab	100408-0	Patuxent River	MD
NAWC-Aircraft Div. Lakehurst Electromagnetic Interference Lab.	200222-0	Lakehurst	NJ
NAWCWD EMI Lab, China Lake/Pt. Mugu, CA	200199-0	China Lake	CA
Raytheon Technical Services Co. EMI Laboratory	200317-0	Indianapolis	IN
Retlif Testing Laboratories	100267-0	Ronkonkoma	NY
Sanders A Lockheed Martin Co.	200425-0	Nashua	NH
TUV Product Service, Inc.	100268-0	San Diego	CA
TUV Product Service, Inc.	100271-0	New Brighton	MN

DOSIMETRY GROUP

Ionizing Radiation Dosimetry

AmerGen	100510-0	Middletown	PA
Arizona Public Service Co., Palo Verde Nuclear Generating Station	100536-0	Tonopah	AZ
Atomic Energy Industrial Laboratory of the Southwest, Inc.	100556-0	Houston	TX
Baltimore Gas & Electric Company	100501-0	Lusby	MD
Battelle - Pacific Northwest National - Laboratory	200216-0	Richland	WA
Carolina Power & Light Company, Harris Energy & Enviro. Center	100517-0	New Hill	NC
Clinton Power Station	100570-0	Clinton	IL
ComEd - TLD Processing Laboratory	100541-0	Wilmington	IL
Con Edison, Indian Point	100538-0	Buchanan	NY
Detroit Edison, Fermi 2 Dosimetry Laboratory	100529-0	Newport	MI
Duke Engineering and Services Environmental Laboratory	100524-0	Marlborough	MA
Duke Power Company Dosimetry Laboratory	100505-0	Charlotte	NC
Duquesne Light Company, Beaver Valley Power Station	100521-0	Shippingport	PA
Eberline Dosimetry Service	100515-0	Albuquerque	NM
Electric Boat Corp/A General Dynamics Co. Radiological Ctrl. Dept	100560-0	Groton	CT
Entergy Operations, Inc.	100535-0	Taft	LA
Florida Power & Light Company	100544-0	Juno Beach	FL
Georgia Power Company/Enviro. Affairs,	100551-0	Smyrna	GA

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Enviro. Lab-Dosimetry			
Ginna Nuclear Station	100514-0	Ontario	NY
ICN Worldwide Dosimetry Service, Div. of ICN Biomedicals, Inc.	100555-0	Costa Mesa	CA
Landauer, Inc.	100518-0	Glenwood	IL
Mallinckrodt, Inc.	100503-0	Maryland Heights	MO
Naval Dosimetry Center	100504-0	Bethesda	MD
Naval Nuclear Propulsion Program Directorate, Washington, DC	100565-0	Bremerton	WA
Newport News Shipbuilding Radiological Control Department	100561-0	Newport News	VA
Northeast Utilities Dosimetry Laboratory	100540-0	Newington	CT
Pacific Gas & Electric Company, Diablo Canyon Nuclear Power Plant	100537-0	Avila Beach	CA
PP&L, Inc.	100554-0	Allentown	PA
Proxtronic, Inc.	100573-0	Burke	VA
Radiation Detection Company	100512-0	Sunnyvale	CA
Radiation Laboratory, Taiwan Power Company	100562-0	Shihmen, Taipei	TAIWAN
South Texas Project Dosimetry Laboratory	100519-0	Wadsworth	TX
Southern California Edison	100506-0	San Clemente	CA
Tennessee Valley Authority External Dosimetry Service	100516-0	Soddy-Daisy	TN
Troxler Radiation Monitoring Svc. a div. of Troxler Elect. Labs	100559-0	Research Triangle Park	NC
TU Electric-Comanche Peak Steam Electric Station	100528-0	Glen Rose	TX
U.S. Army Radiation Standards & Dosimetry Laboratory	100539-0	Redstone Arsenal	AL
U.S. EPA	200231-0	Las Vegas	NV
Union Electric Company, Callaway Plant	100502-0	Fulton	MO
United States Dosimetry Technology, Inc.	100571-0	Richland	WA
US Air Force Center for Radiation Dosimetry	100548-0	Brooks AFB	TX

ENVIRONMENTAL GROUP
Asbestos Fiber Analysis (PLM Test Method)

A & B Environmental Services, Inc.	101793-0	Houston	TX
A.E.S.L. Environmental Laboratory	200303-0	Tempe	AZ
A.R.C. Laboratories, Inc.	101832-0	Grand Forks	ND
ABM Environmental Consultants, Inc.	102015-0	Long Island City	NY
Accredited Environmental Technologies, Inc.	101051-0	Media	PA
Accredited Environmental Technologies, Inc.	200236-0	Leland	NC
ACM Environmental, Inc.	101977-0	South Bend	IN
Advanced Industrial Hygiene Services, Inc.	101006-0	Miami	FL
AES International	200051-0	Santurce	PR
AGRA Earth & Environmental, Inc., PLM LAB	200444-0	Phoenix	AZ
AGX, Inc.	101578-0	Cranberry Township	PA
Aires Consulting Group, Inc.	101014-0	Batavia	IL
AIRResearch, Inc.	101868-0	Wauwatosa	WI
Airtek Environmental Corp.	102011-0	New York	NY
ALAC	200323-0	New York	NY

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Allegheny Asbestos Analysis	101704-0	Carnegie	PA
Alpine Consulting, Inc.	102089-0	Colorado Springs	CO
AMA Analytical Services, Inc.	101143-0	Lanham	MD
Ambient Labs, Inc.	101618-0	New York	NY
American Asbestos Laboratories, Inc.	101775-0	Miami Lakes	FL
American Electric Power, Environmental Laboratory	102102-0	Columbus	OH
American Medical Laboratories, Inc.	101136-0	Chantilly	VA
Analytica Solutions, Inc.	101086-0	Broomfield	CO
Analytical Environmental Services, Inc.	102082-0	Atlanta	GA
Analytical Industries, Inc.	101855-0	Paducah	KY
Analytical Labs San Francisco, Inc.	101909-0	San Francisco	CA
AnalyticaLab	101727-0	Willow Springs	IL
Apex Research, Inc.	102118-0	Whitmore Lake	MI
Apollo Environmental, Inc.	101871-0	Gibsonston	FL
Applied Environmental, Inc.	101611-0	Reston	VA
ASBESTECH	101442-0	Carmichael	CA
Asbestos Analysis and Information Service, Inc.	101261-0	Four Oaks	NC
Asbestos Consulting & Testing (ACT)	101649-0	Lenexa	KS
Asbestos TEM Laboratories, Inc.	101891-0	Berkeley	CA
Asbestos TEM Laboratories, Inc.	200104-0	Sparks	NV
Assaigai Analytical Laboratories, Inc.	101457-0	Albuquerque	NM
ATC Associates Inc.	101187-0	New York	NY
ATC Associates Inc.	200250-0	Columbia	MD
ATC Environmental, Inc.	102031-0	Englewood	CO
Athenica Environmental Services, Inc.	101958-0	Long Island City	NY
Aurora Consolidated Laboratories	101661-0	West Allis	WI
Batta Laboratories, Inc.	101032-0	Newark	DE
Bay Area Air Quality Management District	102090-0	San Francisco	CA
Beling Consultants, Inc.	101356-0	Moline	IL
Bell Laboratories, Division Lucent Technologies, Inc.	101965-0	Murray Hill	NJ
Braun Intertec Corporation	101234-0	Minneapolis	MN
CA Laboratories, L.L.C.	200452-0	Baton Rouge	LA
CAM Environmental Services, Inc.	200240-0	Pasadena	TX
CAMCO Lab	101803-0	Fontana	CA
Cape Environmental Management, Inc.	102111-0	Atlanta	GA
Carnow, Conibear & Associates Ltd.	101039-0	Chicago	IL
Carolina Environmental, Inc.	101768-0	Cary	NC
Chatfield Technical Consulting Limited	101103-0	Mississauga Ontario	CANADA
ChemScope, Inc.	101061-0	North Haven	CT
Chopra-Lee, Inc.	200095-0	Grand Island	NY
City of Los Angeles Department of Water and Power	101111-0	Los Angeles	CA
Clark Seif Clark, Inc.	200324-0	Chatsworth	CA
Clayton Environmental Consultants	101106-0	Seattle	WA
Clayton Laboratory Services	101125-0	Kennesaw	GA
Comprehensive Health Services-Environmental Health PLM Laboratory	101759-0	Kennedy Space Center	FL
Con Edison - ChemLab	101558-0	Long Island City	NY

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Concord Analysis, Inc.	101884-0	Chatsworth	CA
Continental Envirotech, Inc.	200080-0	Mesa	AZ
Converse Consultants MR, Inc.	102091-0	Reno	NV
Covino Environmental Associates, Inc.	101781-0	Woburn	MA
Crisp Analytical Laboratory	200349-0	Carrollton	TX
Criterion Laboratories, Inc.	102046-0	Bensalem	PA
CTL Environmental Services	101216-0	Harbor City	CA
Dames & Moore, Inc.	101433-0	Salem	NH
DataChem Laboratories	101917-0	Cincinnati	OH
Davis & Floyd, Inc.	101410-0	Greenwood	SC
DCM Science Laboratory, Inc.	101258-0	Wheat Ridge	CO
Design for Health Environmental Services	101864-0	San Diego	CA
DHMH-Air Quality Laboratory	101523-0	Baltimore	MD
Dixon Information Inc.	101012-0	South Salt Lake	UT
Dolphin Environmental Consultants	102086-0	Stafford	TX
Dove Environmental Corporation	102053-0	Miami	FL
EA Group	101019-0	Mentor	OH
EAI, Inc.	102114-0	Jersey City	NJ
Eastern Analytical Services, Inc.	101646-0	Elmsford	NY
EcoSystems Environmental, Inc.	101162-0	Carrollton	TX
EMS Laboratories, Inc.	101218-0	Pasadena	CA
EMSL Analytical Inc. Bulk And Airborne Asbestos Fiber Analysis	200399-0	Chicago	IL
EMSL Analytical, Inc.	101048-0	Westmont	NJ
EMSL Analytical, Inc.	101048-1	Atlanta	GA
EMSL Analytical, Inc.	101048-2	Piscataway	NJ
EMSL Analytical, Inc.	101048-3	Milpitas	CA
EMSL Analytical, Inc.	101048-4	Ann Arbor	MI
EMSL Analytical, Inc.	101048-9	New York	NY
EMSL Analytical, Inc.	101048-10	Carle Place	NY
EMSL Analytical, Inc.	101151-0	Orlando	FL
EMSL Analytical, Inc.	102104-0	Greensboro	NC
EMSL Analytical, Inc.	102106-0	Houston	TX
EMSL Analytical, Inc.	200019-0	Minneapolis	MN
EMSL Analytical, Inc.	200034-0	Dallas	TX
EMSL Analytical, Inc.	200056-0	Williamsville	NY
EMSL Analytical, Inc.	200188-0	Indianapolis	IN
EMSL Analytical, Inc.	200204-0	N. Miami Beach	FL
EMSL Analytical, Inc.	200293-0	Beltsville	MD
EMSL Analytical, Inc.	200333-0	Elmsford	NY
EMSL Analytical, Inc.	200375-0	Baton Rouge	LA
ENCORP	200013-0	El Segundo	CA
Enviro Techniques, Inc.	200024-0	Paterson	NJ
Enviro-Probe, Inc.	101222-0	Bronx	NY
EnviroHealth Technologies, Inc.	200374-0	St. Louis	MO
EnviroMed Services, Inc.	101514-0	New Haven	CT
Environmental Enterprise Group(EEG), Inc.	101587-0	Russellville	AR
Environmental Hazards Services, L.L.C.	101882-0	Richmond	VA
Environmental Health Laboratories	101506-0	Clayton	MO
Environmental Management Consultants, Inc.	101926-0	Scottsdale	AZ
Environmental Monitoring & Consulting Associates	101087-0	Somerville	NJ

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Environmental Science Services, Inc.	200424-0	Lockeford	CA
Environmental Services International, Inc.	101306-0	St. Albans	WV
Environmental Testing and Monitoring Services, Inc.	200131-0	Virginia Beach	VA
Environmental Testing, Inc.	101848-0	Middletown	DE
EnvironMETeo Services Inc.	101807-0	Waipahu	HI
Envirotest, Inc.	101595-0	Houston	TX
ERI Consulting Engineers, Inc.	101232-0	Tyler	TX
ESG Laboratories	102029-0	Indianapolis	IN
Fiberquant, Inc.	101031-0	Phoenix	AZ
Fibertec, Inc.	101510-0	Holt	MI
Fluor Daniel Fernald, Inc., Analytical Laboratory Services	102010-0	Cincinnati	OH
Forensic Analytical	101459-0	Hayward	CA
Forensic Analytical Specialties, Inc.	101459-1	Rancho Domingues	CA
Froehling & Robertson, Inc.	102060-0	Richmond	VA
FRS Geotech, Inc.	102078-0	Denver	CO
GA Environmental Services, Inc.	101996-0	Eddystone	PA
Galson Laboratories	101375-0	East Syracuse	NY
Gelles Laboratories, Division, CC Technologies	101170-0	Dublin	OH
GLE Associates, Inc.	102003-0	Tampa	FL
Health Science Associates	101384-0	Los Alamitos	CA
Hi-Tech Environmental and Laboratory Services	102013-0	Cypress	CA
HIH Laboratory, Inc.	101233-0	Webster	TX
Hillmann Environmental Group, L.L.C.	101421-0	Union	NJ
Hub Testing Laboratory, Inc.	101045-0	Waltham	MA
Hygeia Laboratories Inc.	102116-0	Sierra Madre	CA
Hygeia Laboratories, Inc.	102087-0	Marietta	GA
Hygeia Laboratories, Inc.	200335-0	Miami	FL
HYGENIX, INC.	101199-0	Stamford	CT
Hygieneering, Inc.	101997-0	Willowbrook	IL
Hygienetics Laboratory Services	101147-0	Boston	MA
Industrial Laboratory	102115-0	Portsmouth	VA
Institute for Environmental Assessment	101249-0	Brooklyn Park	MN
International Asbestos Testing Laboratory	101165-0	Mt. Laurel	NJ
Iowa Environmental Services, Inc.	101990-0	Des Moines	IA
Jimmie Ann Bolton	101735-0	Austin	TX
JLC Environmental Consultants, Inc.	101953-0	New York	NY
JMR Environmental Services Inc.	200067-0	San Diego	CA
JMS Environmental Associates, Ltd.	102012-0	Westmont	IL
KAM Consultants	102047-0	Long Island City	NY
Kellco Services, Inc.	101331-0	Hayward	CA
Kevco Services, Inc.	101941-0	Butler	PA
Kingston Environmental Laboratory	200041-0	Lee's Summit	MO
Knoxville Branch Laboratory-TN Dept. Health	101496-0	Knoxville	TN
KSL	200442-0	Mokelumne Hill	CA
LA Testing	200232-0	S. Pasadena	CA
Labcorp Analytics Laboratory	101004-0	Richmond	VA
Larron Laboratory	101415-0	Cape Girardeau	MO

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Law Engineering and Environmental Services, Inc.	101066-0	Birmingham	AL
Law Engineering and Environmental Services, Inc.	101152-0	Houston	TX
Law Engineering and Environmental Services, Inc.	101226-0	Charlotte	NC
Law Engineering and Environmental Services, Inc.	101515-0	Tampa	FL
Law Engineering and Environmental Services, Inc.	101515-1	Miami Lakes	FL
Law Engineering and Environmental Services, Inc.	101973-0	Dallas	TX
Law Engineering and Environmental Services, Inc.	102035-0	Phoenix	AZ
Legend Technical Services, Inc.	102081-0	St. Paul	MN
LEX Scientific Inc.	101949-0	Guelph Ontario	CANADA
Los Angeles Harbor Department Testing Laboratory	102020-0	Wilmington	CA
Los Angeles Unified School District	101505-0	Los Angeles	CA
Louisiana Department of Environmental Quality Microanalytical Lab	102000-0	Baton Rouge	LA
m.a.c. Paran Consulting Services, Inc.	102108-0	Amelia	OH
MACS Lab, Inc.	101948-0	Santa Clara	CA
Marine Chemist Service, Inc.	101425-0	Newport News	VA
Materials Analytical Services, Inc.	101235-0	Suwanee	GA
McCall and Spero Environmental, Inc.	101895-0	Louisville	KY
McKee Environmental Health, Inc.	101135-0	Friendswood	TX
Micro Air of Texas, Inc.	102008-0	Houston	TX
Micro Air, Inc.	101221-0	Indianapolis	IN
Micro Analytical Laboratories, Inc.	101872-0	Emeryville	CA
Micro Analytical Laboratories, Inc.	200054-0	San Francisco	CA
Micro Analytical, Inc.	101247-0	Milwaukee	WI
Micron Environmental Labs	200294-0	Arcadia	CA
Microscopic Analysis, Inc.	101037-0	St. Louis	MO
Midwest Laboratories, Inc.	101894-0	Countryside	IL
Mountain Laboratories	101890-0	Spokane	WA
Muranaka Environmental Consultants, Inc.	102085-0	Honolulu	HI
Mystic Air Quality Consultants, Inc.	101282-0	Groton	CT
NASA-Lewis Research Center	200130-0	Cleveland	OH
NATEC International, Inc.	101155-0	Garden Grovc	CA
National Econ Corporation	102062-0	Tustin	CA
National Econ Corporation	200047-0	Memphis	TN
National Environmental Reference Laboratory	101593-0	Denver	CO
NetCompliance Products & Services, Inc.	101869-0	Vancouver	WA
New York Testing Laboratories, Inc.	101332-0	Bay Shore	NY
Niche Analysis, Inc.	102057-0	Mount Vernon	NY
Northern Analytical Laboratories, Inc.	101292-0	Billings	MT
Northern Testing Laboratories, Inc.	101463-0	Fairbanks	AK
Nova Consulting Group, Inc.	101545-0	Chaska	MN
Nowicki & Associates, Inc.	200322-0	Federal Way	WA
NVL Laboratories, Inc.	102063-0	Seattle	WA

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
NY Environmental & Analytical Labs, Inc.	101967-0	Port Washington	NY
OCCU-TEC, Inc.	102025-0	Kansas City	MO
Occupational Health Conservation, Inc.	102050-0	Jacksonville	FL
Oklahoma Dept. of Environmental Quality-State Environmental Lab	102112-0	Oklahoma City	OK
Omega Environmental Services	101289-0	Hackensack	NJ
Omni Environmental, Inc.	102061-0	Austin	TX
PA DEP Bureau of Laboratories	101323-0	Harrisburg	PA
Pace Analytical	101265-0	Indianapolis	IN
Pacific Rim Environmental, Inc.	101631-0	Tukwila	WA
Palmetto Laboratory, Inc.	102077-0	St. Petersburg	FL
Patriot Environmental Laboratory Services	200358-0	Garden Grove	CA
PBS Environmental Building Consultants, Inc.	101910-0	Portland	OR
Philip Analytical Services	101262-0	Reading	PA
Philip Environmental Services Corp.	101192-0	Columbia	IL
Pinchin Environmental Ltd.	101270-0	Mississauga Ontario	CANADA
PMK Group, Inc.	101301-0	Kenilworth	NJ
Portsmouth ES&H Analytical	101383-0	Piketon	OH
Prezant Associates, Inc.	101886-0	Seattle	WA
ProScience Analytical Services, Inc.	200090-0	Woburn	MA
PSI	101350-0	Pittsburgh	PA
Puget Sound Naval Shipyard	101539-0	Bremerton	WA
PWC Environmental Laboratory, Pearl Harbor	200369-0	Pearl Harbor	HI
QuanTEM Laboratories, LLC	101959-0	Oklahoma City	OK
Quest MicroAnalytics	200249-0	Dallas	TX
R. Robinson Analytical Services, Inc.	102041-0	Pensacola	FL
Rapid Environmental Management, Inc.	101974-0	Great Neck	NY
RCM Laboratories, Inc.	101853-0	Countryside	IL
Reservoirs Environmental Services, Inc.	101896-0	Denver	CO
RI Analytical Laboratories, Inc.	101440-0	Warwick	RI
RJ Lee Group, Inc.	101208-0	Monroeville	PA
RJ Lee Group, Inc.	101208-2	San Leandro	CA
RJ Lee Group, Inc.	101208-3	Manassas	VA
Roy F. Weston, Inc.	101254-0	Auburn	AL
Safe Environment of America, Inc.	102021-0	Kent	WA
San Joaquin Environmental, Inc.	102117-0	Fresno	CA
Schneider Laboratories, Inc.	101150-0	Richmond	VA
Scientific Laboratories, Inc.	101904-0	Midlothian	VA
Scientific Laboratories, Inc.	101904-1	New York	NY
SCILAB BOSTON, Inc.	102079-0	East Weymouth	MA
SCILAB California, Inc.	200346-0	Carson	CA
SEAS, Inc.	101185-0	Blacksburg	VA
Solar Environmental Services, Inc.	102006-0	Anchorage	AK
South Carolina Department of Health & Environmental Control	101572-0	Columbia	SC
South Coast Air Quality Management District	101567-0	Diamond Bar	CA
STAT Analysis Corporation	101202-0	Chicago	IL
State of Connecticut	101237-0	Hartford	CT
Steve Moody Micro Services, Inc.	102056-0	Carrollton	TX
Sun City Analytical, Inc.	101870-0	El Paso	TX

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Taylor Environmental Group, Inc.	102101-0	Floral Park	NY
TC Analytics, Inc.	101672-0	Norfolk	VA
TEM, Incorporated	101130-0	Glen Ellyn	IL
Testing Mechanics Corp.	102001-0	Seaford	NY
Testwell Laboratories, Inc./Testwell Industries, Inc.	200083-0	Ossining	NY
The Scott Lawson Group, Ltd.	101228-0	Concord	NH
TolTest, Inc.	101594-0	Toledo	OH
TRC Environmental Corporation	101424-0	Windsor	CT
Tremco, Inc. - Roofing Division, An RPM Company	101188-0	Beachwood	OH
Triad Environmental Consulting, Inc.	102073-0	Huntington	WV
Twin Ports Testing, Inc.	102083-0	Superior	WI
U.S. Army Center for Health Promotion and Preventive Medicine	200044-0	Aberdeen Proving Ground	MD
U.S. EPA - National Enforcement Investigations Center	101703-0	Denver	CO
United Analytical Services, Inc.	101732-0	Downers Grove	IL
University (State) Hygienic Laboratory	101288-0	Iowa City	IA
University of Alabama Asbestos Laboratory	102005-0	Tuscaloosa	AL
Volz Environmental Services, Inc.	101269-0	Pittsburgh	PA
Waste Management Federal Services of Hanford, Inc.	101058-0	Richland	WA
Water, Earth Solutions & Technologies, Inc.	102043-0	Dallas	TX
Western Analytical Laboratory	200037-0	Burbank	CA
White Environmental Consultants Inc.	200124-0	Anchorage	AK
White Environmental Consultants, Inc.	200350-0	Honolulu	HI
Wisconsin Occupational Health Laboratory	101109-0	Madison	WI
WKP Laboratories, Inc.	101950-0	New York City	NY
Wonder Makers Environmental, Inc.	102065-0	Kalamazoo	MI
<i>Asbestos Fiber Analysis (TEM Test Method)</i>			
Aires Consulting Group, Inc.	101014-0	Batavia	IL
AMA Analytical Services, Inc.	101143-0	Lanham	MD
Analytica Solutions, Inc.	101086-0	Broomfield	CO
Analytical Environmental Services, Inc.	102082-0	Atlanta	GA
ASBESTECH	101442-0	Carmichael	CA
Asbestos TEM Laboratories, Inc.	101891-0	Berkeley	CA
ATC Associates Inc.	101187-0	New York	NY
Batta Laboratories, Inc.	101032-0	Newark	DE
Braun Intertec Corporation	101234-0	Minneapolis	MN
Carnow, Conibear & Associates Ltd.	101039-0	Chicago	IL
Chopra-Lee, Inc.	200095-0	Grand Island	NY
Clayton Laboratory Services	101125-0	Kennesaw	GA
Crisp Analytical Laboratory	200349-0	Carrollton	TX
DataChem Laboratories	101917-0	Cincinnati	OH
E. M. Analytical, Inc.	101902-0	Dania	FL
Eastern Analytical Services, Inc.	101646-0	Elmsford	NY
EMS Laboratories, Inc.	101218-0	Pasadena	CA
EMSL Analytical Inc. Bulk And Airborne Asbestos Fiber Analysis	200399-0	Chicago	IL
EMSL Analytical, Inc.	101048-0	Westmont	NJ
EMSL Analytical, Inc.	101048-1	Atlanta	GA

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
EMSL Analytical, Inc.	101048-2	Piscataway	NJ
EMSL Analytical, Inc.	101048-3	Milpitas	CA
EMSL Analytical, Inc.	101048-4	Ann Arbor	MI
EMSL Analytical, Inc.	101048-9	New York	NY
EMSL Analytical, Inc.	101048-10	Carle Place	NY
EMSL Analytical, Inc.	101151-0	Orlando	FL
EMSL Analytical, Inc.	102104-0	Greensboro	NC
EMSL Analytical, Inc.	102106-0	Houston	TX
EMSL Analytical, Inc.	200019-0	Minneapolis	MN
EMSL Analytical, Inc.	200034-0	Dallas	TX
EMSL Analytical, Inc.	200056-0	Williamsville	NY
EMSL Analytical, Inc.	200188-0	Indianapolis	IN
EMSL Analytical, Inc.	200204-0	N. Miami Beach	FL
EMSL Analytical, Inc.	200293-0	Beltsville	MD
EMSL Analytical, Inc.	200333-0	Elmsford	NY
EMSL Analytical, Inc.	200375-0	Baton Rouge	LA
Environmental Testing Laboratories, Inc.	101937-0	Farmingdale	NY
Fiberquant, Inc.	101031-0	Phoenix	AZ
Forensic Analytical	101459-0	Hayward	CA
Gelles Laboratories, Division, CC Technologies	101170-0	Dublin	OH
Hygeia Laboratories Inc.	102116-0	Sierra Madre	CA
Hygeia Laboratories, Inc.	200335-0	Miami	FL
Hygienetics Laboratory Services	101147-0	Boston	MA
International Asbestos Testing Laboratory	101165-0	Mt. Laurel	NJ
JMS Environmental Associates, Ltd.	102012-0	Westmont	IL
KAM Consultants	102047-0	Long Island City	NY
LA Testing	200232-0	S. Pasadena	CA
Lab/Cor, Inc.	101920-0	Seattle	WA
Los Angeles Unified School District	101505-0	Los Angeles	CA
MACS Lab, Inc.	101948-0	Santa Clara	CA
Materials Analytical Services, Inc.	101235-0	Suwanee	GA
McCall and Spero Environmental, Inc.	101895-0	Louisville	KY
Micro Analytical Laboratories, Inc.	101872-0	Emeryville	CA
Midwest Laboratories, Inc.	101894-0	Countryside	IL
New York Testing Laboratories, Inc.	101332-0	Bay Shore	NY
Pace Analytical	101265-0	Indianapolis	IN
Philip Analytical Services	101262-0	Reading	PA
ProScience Analytical Services, Inc.	200090-0	Woburn	MA
PSI	101350-0	Pittsburgh	PA
QuanTEM Laboratories, LLC	101959-0	Oklahoma City	OK
Reservoirs Environmental Services, Inc.	101896-0	Denver	CO
RJ Lee Group, Inc.	101208-0	Monroeville	PA
RJ Lee Group, Inc.	101208-2	San Leandro	CA
RJ Lee Group, Inc.	101208-3	Manassas	VA
Scientific Laboratories, Inc.	101904-0	Midlothian	VA
Scientific Laboratories, Inc.	101904-1	New York	NY
SCILAB BOSTON, Inc.	102079-0	East Weymouth	MA
SCILAB California, Inc.	200346-0	Carson	CA
STAT Analysis Corporation	101202-0	Chicago	IL
Steve Moody Micro Services, Inc.	102056-0	Carrollton	TX
TEM, Incorporated	101130-0	Glen Ellyn	IL

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Testwell Laboratories, Inc./Testwell Industries, Inc.	200083-0	Ossining	NY
United Analytical Services, Inc.	101732-0	Downers Grove	IL
University (State) Hygienic Laboratory	101288-0	Iowa City	IA
FASTENER & METALS GROUP			
<i>Fasteners & Metals</i>			
Acos Villares SA - Chemical Laboratory	200394-0	Pindamonhangaba SP	BRASIL
Aerospace NYLOK - a subsidiary of the NYLOK Fastener Corporation	200271-0	Hawthorne	NJ
Alloy & Stainless Testing	200353-0	Virginia Beach	VA
Aoyama Fastener Laboratory	200213-0	Niwa-gun, Aichi Prefecture	JAPAN
BCAG Fastener Quality Test Lab Everett Site	200292-0	Seattle	WA
Belgo-Mineira Chemical Laboratory	200196-0	35.930-900 Joao Monlevade	BRAZIL
Binder Metal Products, Inc.	200321-0	Gardena	CA
Bodycote Industrial Testing, Ltd.	101072-0	St. Louis	MO
California Screw Products	200183-0	Paramount	CA
Casey Products, Inc.	200278-0	Lisle	IL
CBS Fasteners, Inc.	200253-0	Anaheim	CA
Dexter Fastener Technologies, Inc.	200144-0	Dexter	MI
Durkee Testing Laboratories, Inc.	200178-0	Paramount	CA
FabriSteel Products Inc.	200329-0	Taylor	MI
Fastener Innovation Technology, Inc.	200179-0	Gardena	CA
Fong Prean Industrial Co., Ltd.	200288-0	Kaohsiung Hsien	TAIWAN
Fuji Buhin Kogyo Kabushiki Kaisha	200203-0	Ohta Gunma	JAPAN
Fuji Component Parts USA, Inc.	200180-0	Indianapolis	IN
Fwu Kuang Enterprises Co., Ltd.	200286-0	Tainan Hsien	TAIWAN
Hadd-Co Inspection Lab	200326-0	Torrance	CA
Ingersoll Fasteners	200208-0	Ingersoll Ontario	CANADA
Ivaco Rolling Mills, Chemistry Laboratory	200143-0	L'Orignal Ontario	CANADA
J.W. Mfg. DBA Van Petty Mfg.	200225-0	Newbury Park	CA
Kobelco Research Institute, Inc. Stock Company	200169-0	Kobe	JAPAN
Korea Testing & Research Inst. for Chemical Industry-Inchon Off.	200177-0	Inchon	KOREA
Kyowa Kogyosyo Co., Ltd. Test Laboratory	200274-0	Komatsu City, Ishikawa	JAPAN
Leland-Powell Fasteners, Inc. Fastener Testing Laboratory	200171-0	Martin	TN
MAC Fasteners, Inc.	200141-0	Ottawa	KS
MacLean Fasteners - QC Laboratory	200153-0	Mundelein	IL
Meidoh Laboratory	200239-0	Toyota, Aichi	JAPAN
Minebea Co., Ltd. Fujisawa Manufacturing Unit	200229-0	Fujisawa, Kanagawa	JAPAN
Modern Plating Corporation	200320-0	Freeport	IL
Northwestern Steel and Wire Company	200224-0	Sterling	IL
NOVA Machine Products	200202-0	Middleburg Heights	OH
NYLOK Fastener Corporation	200272-0	Anaheim	CA
NYLOK Fastener Corporation	200273-0	Macomb	MI
NYLOK Fastener Corporation - Chicago Testing Laboratory	200275-0	Lincolnwood	IL
O & K Company Limited, Osaka Test Center	200166-0	Osaka-Shi	JAPAN
Okai Iron Works Co., Ltd.	200299-0	Izumisano Osaka	JAPAN

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Okawa Laboratory	200296-0	Naka-gun, Ibaraki-ken	JAPAN
PB Fasteners	200139-0	Gardena	CA
Piolax Inc.	200411-0	Mooka-shi Tochigi-ken	JAPAN
Pratt & Whitney Materials Control Laboratory	200336-0	East Hartford	CT
Prospect Testing Labs, Inc.	200328-0	Des Plaines	IL
Protsa, S.A. de C.V.	200261-0	Mexico City	MEXICO
Republic Fastener Manufacturing	200195-0	Newbury Park	CA
Republic Technologies International, Franklin Chemical Laboratory	200148-0	Johnstown	PA
Robbins Manufacturing Co., Inc.	200161-0	Fall River	MA
Rockford Bolt & Steel Co.	200255-0	Rockford	IL
Rocknel Fastener Inc.	200307-0	Rockford	IL
San Shing Hardware Works Co., Ltd. Test Laboratory	200158-0	Tainan	TAIWAN
Sannohashi Corporation	200205-0	Yashioshi, Saitama-ken	JAPAN
Saturn Fasteners, Inc.	200327-0	Burbank	CA
SNB Laboratory	200308-0	Cumberland	RI
SPS Technologies Aerospace Product Division	200298-0	Santa Ana	CA
Sumitomo Metal Technology, Inc. Kokura Division	200215-0	Kitakyushu	JAPAN
Sundram Fasteners Limited (Inhouse test laboratory)	200212-0	Chennai (Madras), Tamil, Nadh	INDIA
Sundram Fasteners Limited Chemical Testing Laboratory	200256-0	Andhra Pradesh	INDIA
The Monadnock Company	200268-0	City of Industry	CA
TWN Fastener, Inc.	200194-0	Bowling Green	KY
United Steel and Fasteners Inc.	200341-0	Itasca	IL
Vermont Fasteners Manufacturing	200254-0	Swanton	VT
Walker Bolt Manufacturing Co.	200126-0	Houston	TX
Wolverine Plating Corp.	200230-0	Roseville	MI

PRODUCT TESTING GROUP
Acoustical Testing Services

Acoustic Systems Acoustical Research Facility	100286-0	Austin	TX
Aearo Company, E·A·RCAL Acoustical Laboratory	100374-0	Indianapolis	IN
Architectural Testing Inc.	200361-0	York	PA
Armstrong Acoustic Labs, Armstrong World Ind., Inc. Innov. Center	100228-0	Lancaster	PA
Celotex Testing Services	100417-0	St. Petersburg	FL
Dell Regulatory Test Laboratories	200052-0	Round Rock	TX
Hufcor Laboratory	100239-0	Janesville	WI
IBM Hudson Valley Acoustics Laboratory	100323-0	Poughkeepsie	NY
Industrial Acoustics Company, Inc., Aero-Acoustics Laboratory	100404-0	Bronx	NY
Integrex Testing Systems - Product Testing Laboratory	100109-0	Granville	OH
Johns Manville Technical Center	100425-0	Littleton	CO
Michael & Associates	100427-0	State College	PA

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
NGC Testing Services, National Gypsum Research Center	200291-0	Buffalo	NY
Orfield Laboratories, Inc.	200248-0	Minneapolis	MN
Ricoh Company LTD. Ohmori Acoustics Test Site	200345-0	Tokyo	JAPAN
Riverbank Acoustical Laboratories	100227-0	Geneva	IL
Stork-Twin City Testing Corporation	200046-0	St. Paul	MN
USG Research-Systems Evaluation Laboratory	200132-0	Libertyville	IL
Vibro-Acoustics Laboratory	100424-0	Scarborough Ontario	CANADA
Western Electro-Acoustic Lab., Inc.	100256-0	Santa Monica	CA
<i>Carpet and Carpet Cushion</i>			
American Carpet Laboratories, Inc.	100139-0	Ringgold	GA
Beaulieu of America - Carpet Testing Lab	100190-0	Dalton	GA
Bentley Testing Laboratory	100288-0	City of Industry	CA
Commercial Testing Company	100120-0	Dalton	GA
Hollytex Carpet Mills, Inc.	100247-0	Anadarko	OK
Independent Textile Testing Service, Inc.	100166-0	Dalton	GA
Interface Testing Laboratory	200402-0	LaGrange	GA
Mohawk Industries, Inc. - Lyerly Plant	100156-0	Lyerly	GA
Professional Testing Laboratory, Inc.	100297-0	Dalton	GA
Shaw Industries, Inc., Central Laboratory Operations	100193-0	Dalton	GA
TSi, Testing Services, Inc.	100108-0	Dalton	GA
Vartest Laboratories, Inc.	200027-0	New York	NY
<i>Commercial Products Testing</i>			
CSA International	100322-0	Etobicoke Ontario	CANADA
D/L Laboratories, Inc.	100252-0	New York	NY
Dodge-Regupol, Inc. Laboratory	200030-0	Lancaster	PA
NAHB Research Center, Inc.	100104-0	Upper Marlboro	MD
SGS U.S. Testing Company, Inc.	100416-0	Tulsa	OK
Willamette Industries, Inc. West Coast Development Lab	200045-0	Wilsonville	OR
<i>Construction Materials Testing</i>			
American Testing Laboratories, Inc.	100146-0	Lancaster	PA
ASC geosciences, inc.	200316-0	Lakeland	FL
City of San Jose, Materials Testing Laboratory	100325-0	San Jose	CA
Eastern Materials Testing Lab a division of Jaworski Geotech	100315-0	Berlin	CT
Fairfield Testing Laboratory, Inc.	100317-0	Stamford	CT
Fairway Testing Company, Inc.	100340-0	Stony Point	NY
Independent Materials Testing Laboratories, Inc.	100316-0	Plainville	CT
INEEL Materials Testing Lab CFA 602	200415-0	Idaho Falls	ID
Inland Foundation Engineering, Inc.	100406-0	San Jacinto	CA
Materials Testing, Inc.	100320-0	Milford	CT
Special Testing Laboratories, Inc.	100308-0	Bethel	CT
STS Consultants, Ltd.	100191-0	Vernon Hills	IL
Test-Con Incorporated	200018-0	Danbury	CT
Testwell Laboratories, Inc./Testwell	200083-0	Ossining	NY

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Industries, Inc.			
Tri-State Materials Testing Lab, Inc.	200010-0	Wallingford	CT
W.R. Grace & Co.	200258-0	Cambridge	MA
<i>Efficiency of Electric Motors</i>			
A.O. Smith (Lexington) Engineering Laboratory	200053-0	Lexington	TN
Advanced Energy, Industrial Energy Laboratory	200081-0	Raleigh	NC
GE Owensboro Test Laboratory	200305-0	Owensboro	KY
Marathon Electric - Wausau Engineering Lab.	200134-0	Wausau	WI
Shanghai Testing & Inspection Institute for Electrical Equipment	200407-0	Shanghai	CHINA
Small IAC Test Laboratory	200287-0	Peterborough, ON	CANADA
TECO Electric & Machinery Co., Ltd.	200378-0	Taoyuan	TAIWAN
Toshiba/Houston Test Laboratory	200088-0	Houston	TX
<i>Energy Efficient Lighting Products</i>			
Cooper Lighting - Metalux Research Laboratories	200050-0	Americus	GA
Daybrite Lighting (Genlyte Thomas Group) Photometric Laboratory	200016-0	Tupelo	MS
Duro-Test Corporation	200283-0	Clifton	NJ
GE Lighting- Engineering Support - NA	100398-0	Cleveland	OH
Hubbell Lighting Photometric Laboratory	200020-0	Christiansburg	VA
Intertek Testing Services NA Inc.	100402-0	Cortland	NY
Lithonia Testing Laboratories	200007-0	Conyers	GA
OSRAM SYLVANIA, Test & Measurements Laboratory	100403-0	Beverly	MA
Philips Lighting Corporate Calibration & Standards Laboratory	100399-0	Fairmont	WV
<i>Thermal Insulation Materials</i>			
Celotex Testing Services	100417-0	St. Petersburg	FL
Dow Chemical N. America Foam Products Research, Prod. Perf. Lab.	100103-0	Midland	MI
Flexible Products Company	100210-0	Joliet	IL
Geoscience Ltd.	100142-0	San Diego	CA
Holometrix - Micromet	100113-0	Bedford	MA
Integrex Testing Systems - Product Testing Laboratory	100109-0	Granville	OH
Intertek Testing Services NA Inc.	100402-0	Cortland	NY
Intertek Testing Services NA Inc.	200031-0	Middleton	WI
Johns Manville Technical Center	100425-0	Littleton	CO
Knauf Fiber Glass Research Laboratory	100248-0	Shelbyville	IN
Levecque Technical Center	100101-0	Blue Bell	PA
NAHB Research Center, Inc.	100104-0	Upper Marlboro	MD
R & D Services, Inc.	200265-0	Cookeville	TN
Resources, Applications, Designs & Control, Inc. (RADCO)	100261-0	Long Beach	CA
SGS U.S. Testing Company, Inc.	100416-0	Tulsa	OK
St. of California, Bur. of Home Furnishings & Thermal Insulation	100251-0	North Highlands	CA

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY
Stork-Twin City Testing Corporation	200046-0	St. Paul	MN
Underwriters Laboratories Inc.	100414-0	Northbrook	IL
<i>Wood Based Products</i>			
APA - The Engineered Wood Association Research Center	100423-0	Tacoma	WA
Composite Panel Association (CPA)	100418-0	Gaithersburg	MD
PFS Corporation	100421-0	Madison	WI
Professional Service Industries, Inc., Pittsburgh Test. Lab. Div.	100430-0	Eugene	OR
Timberco, Inc. - dba TECO	100420-0	Eugene	OR

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
AK				
Northern Testing Laboratories, Inc.	101463-0	Fairbanks	AK	PLM
Solar Environmental Services, Inc.	102006-0	Anchorage	AK	PLM
White Environmental Consultants Inc.	200124-0	Anchorage	AK	PLM
AL				
Law Engineering and Environmental Services, Inc.	101066-0	Birmingham	AL	PLM
Roy F. Weston, Inc.	101254-0	Auburn	AL	PLM
U.S. Army Primary Standards Laboratory	105004-0	Redstone Arsenal	AL	Calibration
U.S. Army Radiation Standards & Dosimetry Laboratory	100539-0	Redstone Arsenal	AL	Dosimetry
University of Alabama Asbestos Laboratory	102005-0	Tuscaloosa	AL	PLM
AR				
Environmental Enterprise Group(EEG), Inc.	101587-0	Russellville	AR	PLM
AZ				
A.E.S.L. Environmental Laboratory	200303-0	Tempe	AZ	PLM
AGRA Earth & Environmental, Inc., PLM LAB	200444-0	Phoenix	AZ	PLM
Arizona Public Service Co., Palo Verde Nuclear Generating Station	100536-0	Tonopah	AZ	Dosimetry
Continental Envirotech, Inc.	200080-0	Mesa	AZ	PLM
Environmental Management Consultants, Inc.	101926-0	Scottsdale	AZ	PLM
Fiberquant, Inc.	101031-0	Phoenix	AZ	PLM
Fiberquant, Inc.	101031-0	Phoenix	AZ	TEM
Law Engineering and Environmental Services, Inc.	102035-0	Phoenix	AZ	PLM
Motorola SSG EMC/TEMPEST Laboratory	100405-0	Scottsdale	AZ	FCC
Motorola SSG EMC/TEMPEST Laboratory	100405-0	Scottsdale	AZ	MIL-STD-462
CA				
Analytical Labs San Francisco, Inc.	101909-0	San Francisco	CA	PLM
Apple Computer, Inc., EMC Compliance Laboratory	200071-0	Cupertino	CA	FCC
ASBESTECH	101442-0	Carmichael	CA	PLM
ASBESTECH	101442-0	Carmichael	CA	TEM
Asbestos TEM Laboratories, Inc.	101891-0	Berkeley	CA	PLM
Asbestos TEM Laboratories, Inc.	101891-0	Berkeley	CA	TEM
Bay Area Air Quality Management District	102090-0	San Francisco	CA	PLM
Bay Area Compliance Laboratory, Corp.	200167-0	Sunnyvale	CA	FCC
Bentley Testing Laboratory	100288-0	City of Industry	CA	Carpet
Binder Metal Products, Inc.	200321-0	Gardena	CA	Fasteners
California Screw Products	200183-0	Paramount	CA	Fasteners
CAMCO Lab	101803-0	Fontana	CA	PLM
CBS Fasteners, Inc.	200253-0	Anaheim	CA	Fasteners
Cisco Systems, Inc.	200114-0	San Jose	CA	FCC
City of Los Angeles Department of Water and Power	101111-0	Los Angeles	CA	PLM
City of San Jose, Materials Testing Laboratory	100325-0	San Jose	CA	Construction

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
Clark Seif Clark, Inc.	200324-0	Chatsworth	CA	PLM
Compatible Electronics, Inc.	200063-0	Agoura	CA	FCC
Compliance Eng. Svces, Inc., Compliance Certification Services	200065-0	Sunnyvale	CA	FCC
Concord Analysis, Inc.	101884-0	Chatsworth	CA	PLM
CTL Environmental Services	101216-0	Harbor City	CA	PLM
Design for Health Environmental Services	101864-0	San Diego	CA	PLM
Durkee Testing Laboratories, Inc.	200178-0	Paramount	CA	Fasteners
Electro Magnetic Test, Inc.	200147-0	Mountain View	CA	FCC
Electromagnetic Environmental Effects Laboratory	200431-0	El Segundo	CA	MIL-STD-462
Electronic Compliance Laboratories, Inc.	200089-0	Sunnyvale	CA	FCC
Elliott Laboratories, Inc.	200069-0	Sunnyvale	CA	FCC
EMC Compliance Mgmt Group, dba Turntech Scientific & Instr., Inc.	200068-0	Mountain View	CA	FCC
EMCE Engineering, Inc.	200092-0	Fremont	CA	FCC
EMS Laboratories, Inc.	101218-0	Pasadena	CA	PLM
EMS Laboratories, Inc.	101218-0	Pasadena	CA	TEM
EMSL Analytical, Inc.	101048-3	Milpitas	CA	PLM
EMSL Analytical, Inc.	101048-3	Milpitas	CA	TEM
ENCORP	200013-0	El Segundo	CA	PLM
Environmental Science Services, Inc.	200424-0	Lockeford	CA	PLM
Fastener Innovation Technology, Inc.	200179-0	Gardena	CA	Fasteners
Forensic Analytical	101459-0	Hayward	CA	PLM
Forensic Analytical	101459-0	Hayward	CA	TEM
Forensic Analytical Specialties, Inc.	101459-1	Rancho Domingues	CA	PLM
Garwood Laboratories, Inc.	200119-0	Placentia	CA	FCC
Geoscience Ltd.	100142-0	San Diego	CA	Thermal Insl.
Hadd-Co Inspection Lab	200326-0	Torrance	CA	Fasteners
Health Science Associates	101384-0	Los Alamitos	CA	PLM
Hewlett Packard, Product Test Lab, San Diego	200138-0	San Diego	CA	FCC
Hi-Tech Environmental and Laboratory Services	102013-0	Cypress	CA	PLM
Hygeia Laboratories Inc.	102116-0	Sierra Madre	CA	PLM
Hygeia Laboratories Inc.	102116-0	Sierra Madre	CA	TEM
ICN Worldwide Dosimetry Service, Div. of ICN Biomedicals, Inc.	100555-0	Costa Mesa	CA	Dosimetry
InfoGard Laboratories, Inc.	100432-0	San Luis Obispo	CA	Cryptographic
Inland Foundation Engineering, Inc.	100406-0	San Jacinto	CA	Construction
International Technology Company (ITC)	200172-0	Sunol	CA	FCC
Intertek Testing Services	200201-0	Menlo Park	CA	FCC
Intertek Testing Services NA Inc.	200297-0	Laguna Niguel	CA	FCC
J.W. Mfg. DBA Van Petty Mfg.	200225-0	Newbury Park	CA	Fasteners
JMR Environmental Services Inc.	200067-0	San Diego	CA	PLM
Kellco Services, Inc.	101331-0	Hayward	CA	PLM
KSL	200442-0	Mokelumne Hill	CA	PLM
LA Testing	200232-0	S. Pasadena	CA	PLM
LA Testing	200232-0	S. Pasadena	CA	TEM
Los Angeles Harbor Department Testing Laboratory	102020-0	Wilmington	CA	PLM

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
Los Angeles Unified School District	101505-0	Los Angeles	CA	PLM
Los Angeles Unified School District	101505-0	Los Angeles	CA	TEM
MACS Lab, Inc.	101948-0	Santa Clara	CA	PLM
MACS Lab, Inc.	101948-0	Santa Clara	CA	TEM
Met Laboratories Incorporated	200445-0	Union City	CA	FCC
Micro Analytical Laboratories, Inc.	101872-0	Emeryville	CA	PLM
Micro Analytical Laboratories, Inc.	101872-0	Emeryville	CA	TEM
Micro Analytical Laboratories, Inc.	200054-0	San Francisco	CA	PLM
Micron Environmental Labs	200294-0	Arcadia	CA	PLM
NATEC International, Inc.	101155-0	Garden Grove	CA	PLM
National Econ Corporation	102062-0	Tustin	CA	PLM
NAWCWD EMI Lab, China Lake/Pt. Mugu, CA	200199-0	China Lake	CA	MIL-STD-462
NCR Corp. San Diego EMC Lab	200383-0	San Diego	CA	FCC
Nemko EESI, Inc.	200116-0	San Diego	CA	FCC
Nortel Networks	100411-0	Santa Clara	CA	FCC
NYLOK Fastener Corporation	200272-0	Anaheim	CA	Fasteners
Pacific Gas & Electric Company, Diablo Canyon Nuclear Power Plant	100537-0	Avila Beach	CA	Dosimetry
Patriot Environmental Laboratory Services	200358-0	Garden Grove	CA	PLM
PB Fasteners	200139-0	Gardena	CA	Fasteners
PDE Laboratories	200082-0	San Clemente	CA	FCC
Radiation Detection Company	100512-0	Sunnyvale	CA	Dosimetry
Republic Fastener Manufacturing	200195-0	Newbury Park	CA	Fasteners
Resources, Applications, Designs & Control, Inc. (RADCO)	100261-0	Long Beach	CA	Thermal Insl.
RJ Lee Group, Inc.	101208-2	San Leandro	CA	PLM
RJ Lee Group, Inc.	101208-2	San Leandro	CA	TEM
San Joaquin Environmental, Inc.	102117-0	Fresno	CA	PLM
Saturn Fasteners, Inc.	200327-0	Burbank	CA	Fasteners
SCILAB California, Inc.	200346-0	Carson	CA	PLM
SCILAB California, Inc.	200346-0	Carson	CA	TEM
SE Laboratories	200338-0	Santa Clara	CA	Calibration
SGI EMC Laboratories	200233-0	Mountain View	CA	FCC
Sony Electronics Inc. Product Quality Division EMC Group	200312-0	San Diego	CA	FCC
South Coast Air Quality Management District	101567-0	Diamond Bar	CA	PLM
Southern California Edison	100506-0	San Clemente	CA	Dosimetry
Southern California Edison Company	105014-0	Westminster	CA	Calibration
SPS Technologies Aerospace Product Division	200298-0	Santa Ana	CA	Fasteners
St. of California, Bur. of Home Furnishings & Thermal Insulation	100251-0	North Highlands	CA	Thermal Insl.
Sun Microsystems, Inc. EMC Testing	200363-0	Palo Alto	CA	FCC
The Monadnock Company	200268-0	City of Industry	CA	Fasteners
TUV Product Service, Inc.	100268-0	San Diego	CA	FCC
TUV Product Service, Inc.	100268-0	San Diego	CA	MIL-STD-462
Underwriters Laboratories	200252-0	Santa Clara	CA	FCC
Universal Compliance Laboratories	200117-0	San Jose	CA	FCC
VLSI Standards, Inc.	200302-0	San Jose	CA	Calibration
Western Analytical Laboratory	200037-0	Burbank	CA	PLM
Western Electro-Acoustic Lab., Inc.	100256-0	Santa Monica	CA	Acoustics

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
CO				
Alpine Consulting, Inc.	102089-0	Colorado Springs	CO	PLM
Analytica Solutions, Inc.	101086-0	Broomfield	CO	PLM
Analytica Solutions, Inc.	101086-0	Broomfield	CO	TEM
ATC Environmental, Inc.	102031-0	Englewood	CO	PLM
Compaq Computer Corp. EMC Test Facility	200078-0	Colorado Springs	CO	FCC
Criterion Technology	100396-0	Rollinsville	CO	FCC
DCM Science Laboratory, Inc.	101258-0	Wheat Ridge	CO	PLM
Denver Instrument Co. Weight Lab	200106-0	Arvada	CO	Calibration
Environmental Resource Associates (ERA)	200386-0	Arvada	CO	PPT
FRS Geotech, Inc.	102078-0	Denver	CO	PLM
ILX Lightwave Corporation, Optical Calibration	200211-0	Boulder	CO	Calibration
Johns Manville Technical Center	100425-0	Littleton	CO	Acoustics
Johns Manville Technical Center	100425-0	Littleton	CO	Thermal Insl.
National Environmental Reference Laboratory	101593-0	Denver	CO	PLM
Reservoirs Environmental Services, Inc.	101896-0	Denver	CO	PLM
Reservoirs Environmental Services, Inc.	101896-0	Denver	CO	TEM
Storagtek Open Area Test Site	200251-0	Louisville	CO	FCC
TUV Product Service, Inc.	100271-1	Boulder	CO	FCC
U.S. EPA - National Enforcement Investigations Center	101703-0	Denver	CO	PLM
CT				
Absolute Standards, Inc.	200390-0	Hamden	CT	PPT
AccuStandard, Inc.	200389-0	New Haven	CT	PPT
ChemScope, Inc.	101061-0	North Haven	CT	PLM
Eastern Materials Testing Lab a division of Jaworski Geotech	100315-0	Berlin	CT	Construction
Electric Boat Corp/A General Dynamics Co. Radiological Ctrl. Dept	100560-0	Groton	CT	Dosimetry
EnviroMed Services, Inc.	101514-0	New Haven	CT	PLM
Fairfield Testing Laboratory, Inc.	100317-0	Stamford	CT	Construction
HYGENIX, INC.	101199-0	Stamford	CT	PLM
Independent Materials Testing Laboratories, Inc.	100316-0	Plainville	CT	Construction
Materials Testing, Inc.	100320-0	Milford	CT	Construction
Mystic Air Quality Consultants, Inc.	101282-0	Groton	CT	PLM
Northeast Utilities Dosimetry Laboratory	100540-0	Newington	CT	Dosimetry
Pratt & Whitney Materials Control Laboratory	200336-0	East Hartford	CT	Fasteners
Special Testing Laboratories, Inc.	100308-0	Bethel	CT	Construction
State of Connecticut	101237-0	Hartford	CT	PLM
Test-Con Incorporated	200018-0	Danbury	CT	Construction
TRC Environmental Corporation	101424-0	Windsor	CT	PLM
Tri-State Materials Testing Lab, Inc.	200010-0	Wallingford	CT	Construction
TUV Rheinland of North America, Inc.	200111-0	Newtown	CT	FCC

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
DE				
Batta Laboratories, Inc.	101032-0	Newark	DE	PLM
Batta Laboratories, Inc.	101032-0	Newark	DE	TEM
Environmental Testing, Inc.	101848-0	Middletown	DE	PLM
FL				
Advanced Industrial Hygiene Services, Inc.	101006-0	Miami	FL	PLM
American Asbestos Laboratories, Inc.	101775-0	Miami Lakes	FL	PLM
Apollo Environmental, Inc.	101871-0	Gibsonston	FL	PLM
ASC geosciences, inc.	200316-0	Lakeland	FL	Construction
Celotex Testing Services	100417-0	St. Petersburg	FL	Acoustics
Celotex Testing Services	100417-0	St. Petersburg	FL	Thermal Insl.
Comprehensive Health Services-Environmental Health PLM Laboratory	101759-0	Kennedy Space Center	FL	PLM
Dove Environmental Corporation	102053-0	Miami	FL	PLM
E. M. Analytical, Inc.	101902-0	Dania	FL	TEM
EMSL Analytical, Inc.	101151-0	Orlando	FL	PLM
EMSL Analytical, Inc.	101151-0	Orlando	FL	TEM
EMSL Analytical, Inc.	200204-0	N. Miami Beach	FL	PLM
EMSL Analytical, Inc.	200204-0	N. Miami Beach	FL	TEM
Florida Power & Light Company	100544-0	Juno Beach	FL	Dosimetry
GLE Associates, Inc.	102003-0	Tampa	FL	PLM
Hygeia Laboratories, Inc.	200335-0	Miami	FL	PLM
Hygeia Laboratories, Inc.	200335-0	Miami	FL	TEM
Law Engineering and Environmental Services, Inc.	101515-0	Tampa	FL	PLM
Law Engineering and Environmental Services, Inc.	101515-1	Miami Lakes	FL	PLM
Motorola PPG Compliance Laboratory	200318-0	Boynton Beach	FL	FCC
Occupational Health Conservation, Inc.	102050-0	Jacksonville	FL	PLM
Palmetto Laboratory, Inc.	102077-0	St. Petersburg	FL	PLM
Paradyne Corporation	200125-0	Largo	FL	FCC
R. Robinson Analytical Services, Inc.	102041-0	Pensacola	FL	PLM
GA				
American Carpet Laboratories, Inc.	100139-0	Ringgold	GA	Carpet
Analytical Environmental Services, Inc.	102082-0	Atlanta	GA	PLM
Analytical Environmental Services, Inc.	102082-0	Atlanta	GA	TEM
Beaulieu of America - Carpet Testing Lab	100190-0	Dalton	GA	Carpet
Cape Environmental Management, Inc.	102111-0	Atlanta	GA	PLM
Clayton Laboratory Services	101125-0	Kennesaw	GA	PLM
Clayton Laboratory Services	101125-0	Kennesaw	GA	TEM
Commercial Testing Company	100120-0	Dalton	GA	Carpet
Cooper Lighting - Metalux Research Laboratories	200050-0	Americus	GA	Lighting
EMSL Analytical, Inc.	101048-1	Atlanta	GA	PLM
EMSL Analytical, Inc.	101048-1	Atlanta	GA	TEM
Georgia Power Company/Enviro. Affairs, Enviro. Lab-Dosimetry	100551-0	Smyrna	GA	Dosimetry
Hygeia Laboratories, Inc.	102087-0	Marietta	GA	PLM
Independent Textile Testing Service, Inc.	100166-0	Dalton	GA	Carpet

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
Interface Testing Laboratory	200402-0	LaGrange	GA	Carpet
Intertek Testing Services NA Inc.	100409-0	Norcross	GA	FCC
Lithonia Testing Laboratories	200007-0	Conyers	GA	Lighting
Materials Analytical Services, Inc.	101235-0	Suwanee	GA	PLM
Materials Analytical Services, Inc.	101235-0	Suwanee	GA	TEM
Mohawk Industries, Inc.- Lyerly Plant	100156-0	Lyerly	GA	Carpet
Professional Testing Laboratory, Inc.	100297-0	Dalton	GA	Carpet
Shaw Industries, Inc., Central Laboratory Operations	100193-0	Dalton	GA	Carpet
TSi, Testing Services, Inc.	100108-0	Dalton	GA	Carpet
United States Technologies, Inc.	200162-0	Alpharetta	GA	FCC
HI				
EnvironMETeo Services Inc.	101807-0	Waipahu	HI	PLM
Muranaka Environmental Consultants, Inc.	102085-0	Honolulu	HI	PLM
PWC Environmental Laboratory, Pearl Harbor	200369-0	Pearl Harbor	HI	PLM
White Environmental Consultants, Inc.	200350-0	Honolulu	HI	PLM
IA				
Intermec Technologies Corporation, Norand Mobile System Division	100269-0	Cedar Rapids	IA	FCC
Iowa Environmental Services, Inc.	101990-0	Des Moines	IA	PLM
Liberty Labs, Inc.	200123-0	Kimballton	IA	Calibration
University (State) Hygienic Laboratory	101288-0	Iowa City	IA	PLM
University (State) Hygienic Laboratory	101288-0	Iowa City	IA	TEM
ID				
Bechtel B&W Idaho, Standards and Calibration Lab	200115-0	Idaho Falls	ID	Calibration
INEEL Materials Testing Lab CFA 602	200415-0	Idaho Falls	ID	Construction
IL				
Aires Consulting Group, Inc.	101014-0	Batavia	IL	PLM
Aires Consulting Group, Inc.	101014-0	Batavia	IL	TEM
AnalyticaLab	101727-0	Willow Springs	IL	PLM
Beling Consultants, Inc.	101356-0	Moline	IL	PLM
Carnow, Conibear & Associates Ltd.	101039-0	Chicago	IL	PLM
Carnow, Conibear & Associates Ltd.	101039-0	Chicago	IL	TEM
Casey Products, Inc.	200278-0	Lisle	IL	Fasteners
Clinton Power Station	100570-0	Clinton	IL	Dosimetry
ComEd - TLD Processing Laboratory	100541-0	Wilmington	IL	Dosimetry
D.L.S. Electronic Systems, Inc.	100276-0	Wheeling	IL	FCC
Elite Electronic Engineering Inc.	100278-0	Downers Grove	IL	FCC
Elite Electronic Engineering Inc.	100278-0	Downers Grove	IL	MIL-STD-462
EMSL Analytical Inc. Bulk And Airborne Asbestos Fiber Analysis	200399-0	Chicago	IL	PLM
EMSL Analytical Inc. Bulk And Airborne Asbestos Fiber Analysis	200399-0	Chicago	IL	TEM
Flexible Products Company	100210-0	Joliet	IL	Thermal Insl.
Hygieneering, Inc.	101997-0	Willowbrook	IL	PLM
JMS Environmental Associates, Ltd.	102012-0	Westmont	IL	PLM
JMS Environmental Associates, Ltd.	102012-0	Westmont	IL	TEM

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
Landauer, Inc.	100518-0	Glenwood	IL	Dosimetry
MacLean Fasteners - QC Laboratory	200153-0	Mundelein	IL	Fasteners
Midwest Laboratories, Inc.	101894-0	Countryside	IL	PLM
Midwest Laboratories, Inc.	101894-0	Countryside	IL	TEM
Modern Plating Corporation	200320-0	Freeport	IL	Fasteners
Northwestern Steel and Wire Company	200224-0	Sterling	IL	Fasteners
NYLOK Fastener Corporation - Chicago Testing Laboratory	200275-0	Lincolnwood	IL	Fasteners
Philip Environmental Services Corp.	101192-0	Columbia	IL	PLM
Prospect Testing Labs, Inc.	200328-0	Des Plaines	IL	Fasteners
RCM Laboratories, Inc.	101853-0	Countryside	IL	PLM
Riverbank Acoustical Laboratories	100227-0	Geneva	IL	Acoustics
Rockford Bolt & Steel Co.	200255-0	Rockford	IL	Fasteners
Rocknel Fastener Inc.	200307-0	Rockford	IL	Fasteners
STAT Analysis Corporation	101202-0	Chicago	IL	PLM
STAT Analysis Corporation	101202-0	Chicago	IL	TEM
STERIS-Isomedix Services	200235-0	Morton Grove	IL	Calibration
STS Consultants, Ltd.	100191-0	Vernon Hills	IL	Construction
TEM, Incorporated	101130-0	Glen Ellyn	IL	PLM
TEM, Incorporated	101130-0	Glen Ellyn	IL	TEM
Underwriters Laboratories Inc.	100414-0	Northbrook	IL	FCC
Underwriters Laboratories Inc.	100414-0	Northbrook	IL	Thermal Insl.
United Analytical Services, Inc.	101732-0	Downers Grove	IL	PLM
United Analytical Services, Inc.	101732-0	Downers Grove	IL	TEM
United Steel and Fasteners Inc.	200341-0	Itasca	IL	Fasteners
USG Research-Systems Evaluation Laboratory	200132-0	Libertyville	IL	Acoustics
IN				
ACM Environmental, Inc.	101977-0	South Bend	IN	PLM
Aearo Company, E-ARCAL Acoustical Laboratory	100374-0	Indianapolis	IN	Acoustics
EMSL Analytical, Inc.	200188-0	Indianapolis	IN	PLM
EMSL Analytical, Inc.	200188-0	Indianapolis	IN	TEM
ESG Laboratories	102029-0	Indianapolis	IN	PLM
Fuji Component Parts USA, Inc.	200180-0	Indianapolis	IN	Fasteners
GTE Electronic Repair Services	200352-0	Fort Wayne	IN	Calibration
Knauf Fiber Glass Research Laboratory	100248-0	Shelbyville	IN	Thermal Insl.
Micro Air, Inc.	101221-0	Indianapolis	IN	PLM
Pace Analytical	101265-0	Indianapolis	IN	PLM
Pace Analytical	101265-0	Indianapolis	IN	TEM
Raytheon Technical Services Co. EMI Laboratory	200317-0	Indianapolis	IN	MIL-STD-462
KS				
Asbestos Consulting & Testing (ACT)	101649-0	Lenexa	KS	PLM
MAC Fasteners, Inc.	200141-0	Ottawa	KS	Fasteners
Rogers Labs, Inc.	200087-0	Louisburg	KS	FCC
KY				
Analytical Industries, Inc.	101855-0	Paducah	KY	PLM
GE Owensboro Test Laboratory	200305-0	Owensboro	KY	Electric Motors
Intertek Testing Services NA Inc.	100274-0	Lexington	KY	FCC

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
McCall and Spero Environmental, Inc.	101895-0	Louisville	KY	PLM
McCall and Spero Environmental, Inc.	101895-0	Louisville	KY	TEM
TWN Fastener, Inc.	200194-0	Bowling Green	KY	Fasteners
LA				
CA Laboratories, L.L.C.	200452-0	Baton Rouge	LA	PLM
Chrisope Technologies, A Division of Remel	200388-0	Lake Charles	LA	PPT
EMSL Analytical, Inc.	200375-0	Baton Rouge	LA	PLM
EMSL Analytical, Inc.	200375-0	Baton Rouge	LA	TEM
Entergy Operations, Inc.	100535-0	Taft	LA	Dosimetry
Louisiana Department of Environmental Quality Microanalytical Lab	102000-0	Baton Rouge	LA	PLM
MA				
Chomerics Test Services (CTS)	100296-0	Woburn	MA	FCC
Compaq Regulatory Compliance Engineering - East	100413-0	Marlboro	MA	FCC
Covino Environmental Associates, Inc.	101781-0	Woburn	MA	PLM
Curtis-Straus LLC	200057-0	Littleton	MA	FCC
Duke Engineering and Services Environmental Laboratory	100524-0	Marlborough	MA	Dosimetry
EMC Corporation	100339-0	Westboro	MA	FCC
Holometrix - Micromet	100113-0	Bedford	MA	Thermal Insl.
Hub Testing Laboratory, Inc.	101045-0	Waltham	MA	PLM
Hygienetics Laboratory Services	101147-0	Boston	MA	PLM
Hygienetics Laboratory Services	101147-0	Boston	MA	TEM
Instron Force Calibration Laboratory	105023-0	Canton	MA	Calibration
Integrity Design & Test Services, an Entela Company	200004-0	Littleton	MA	FCC
Intertek Testing Services NA Inc.	100270-0	Boxborough	MA	FCC
Intertek Testing Services NA Inc.	100270-0	Boxborough	MA	MIL-STD-462
Motorola EMC Test Services Lab	200005-0	Mansfield	MA	FCC
National Technical Systems	100347-0	Boxborough	MA	MIL-STD-462
OSRAM SYLVANIA, Test & Measurements Laboratory	100403-0	Beverly	MA	Lighting
ProScience Analytical Services, Inc.	200090-0	Woburn	MA	PLM
ProScience Analytical Services, Inc.	200090-0	Woburn	MA	TEM
Quest Engineering Solutions, Inc.	200036-0	N. Billerica	MA	FCC
Robbins Manufacturing Co., Inc.	200161-0	Fall River	MA	Fasteners
SCILAB BOSTON, Inc.	102079-0	East Weymouth	MA	PLM
SCILAB BOSTON, Inc.	102079-0	East Weymouth	MA	TEM
Test Site Services, Inc.	100419-0	Marlboro	MA	FCC
W.R. Grace & Co.	200258-0	Cambridge	MA	Construction
MD				
AMA Analytical Services, Inc.	101143-0	Lanham	MD	PLM
AMA Analytical Services, Inc.	101143-0	Lanham	MD	TEM
ATC Associates Inc.	200250-0	Columbia	MD	PLM
Baltimore Gas & Electric Company	100501-0	Lusby	MD	Dosimetry
CDRH X-Ray Calibration Laboratory	105018-0	Rockville	MD	Calibration
COACT Inc. CAFE Laboratory	200416-0	Columbia	MD	Cryptographic
Composite Panel Association (CPA)	100418-0	Gaithersburg	MD	Wood Prod.
DHMH-Air Quality Laboratory	101523-0	Baltimore	MD	PLM

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
EMSL Analytical, Inc.	200293-0	Beltsville	MD	PLM
EMSL Analytical, Inc.	200293-0	Beltsville	MD	TEM
MET Laboratories, Inc.	100273-0	Baltimore	MD	FCC
NAHB Research Center, Inc.	100104-0	Upper Marlboro	MD	Commercial
NAHB Research Center, Inc.	100104-0	Upper Marlboro	MD	Thermal Insl.
Naval Dosimetry Center	100504-0	Bethesda	MD	Dosimetry
NAWC AD 5.1.7.3. EMI Lab	100408-0	Patuxent River	MD	MIL-STD-462
PCTEST Engineering Laboratory, Inc.	100431-0	Columbia	MD	FCC
U.S. Army Center for Health Promotion and Preventive Medicine	200044-0	Aberdeen Proving Ground	MD	PLM
Washington Laboratories, Ltd.	200066-0	Gaithersburg	MD	FCC
Windermere Info. Tech. Sys.	200084-0	Annapolis	MD	FCC
Military/Commercial Compliance Lab.				
MI				
AHD	200129-0	Dowagiac	MI	FCC
Apex Research, Inc.	102118-0	Whitmore Lake	MI	PLM
Detroit Edison, Fermi 2 Dosimetry Laboratory	100529-0	Newport	MI	Dosimetry
Dexter Fastener Technologies, Inc.	200144-0	Dexter	MI	Fasteners
Dow Chemical N. America Foam Products Research, Prod. Perf. Lab.	100103-0	Midland	MI	Thermal Insl.
Eaton E3 Laboratory	100382-0	Southfield	MI	MIL-STD-462
EMSL Analytical, Inc.	101048-4	Ann Arbor	MI	PLM
EMSL Analytical, Inc.	101048-4	Ann Arbor	MI	TEM
FabriSteel Products Inc.	200329-0	Taylor	MI	Fasteners
Fibertec, Inc.	101510-0	Holt	MI	PLM
NYLOK Fastener Corporation	200273-0	Macomb	MI	Fasteners
Wolverine Plating Corp.	200230-0	Roseville	MI	Fasteners
Wonder Makers Environmental, Inc.	102065-0	Kalamazoo	MI	PLM
MN				
3M Product Safety EMC Laboratory	200033-0	St. Paul	MN	FCC
Braun Intertec Corporation	101234-0	Minneapolis	MN	PLM
Braun Intertec Corporation	101234-0	Minneapolis	MN	TEM
EMSL Analytical, Inc.	200019-0	Minneapolis	MN	PLM
EMSL Analytical, Inc.	200019-0	Minneapolis	MN	TEM
IBM Rochester EMC Lab	200091-0	Rochester	MN	FCC
Institute for Environmental Assessment	101249-0	Brooklyn Park	MN	PLM
Intertek Testing Services NA, Inc.	200049-0	Oakdale	MN	FCC
Legend Technical Services, Inc.	102081-0	St. Paul	MN	PLM
Minnesota Metrology Laboratory	105003-0	St. Paul	MN	Calibration
Nova Consulting Group, Inc.	101545-0	Chaska	MN	PLM
Orfield Laboratories, Inc.	200248-0	Minneapolis	MN	Acoustics
Stork-Twin City Testing Corporation	200046-0	St. Paul	MN	Acoustics
Stork-Twin City Testing Corporation	200046-0	St. Paul	MN	Thermal Insl.
TUV Product Service, Inc.	100271-0	New Brighton	MN	FCC
TUV Product Service, Inc.	100271-0	New Brighton	MN	MIL-STD-462
TUV Telecom Services, Inc.	200039-0	St. Paul	MN	FCC

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
MO				
Bodycote Industrial Testing, Ltd.	101072-0	St. Louis	MO	Fasteners
Boeing - St. Louis Electromagnetic Compatibility Laboratory	200382-0	St. Louis	MO	MIL-STD-462
EnviroHealth Technologies, Inc.	200374-0	St. Louis	MO	PLM
Environmental Health Laboratories	101506-0	Clayton	MO	PLM
Honeywell FM&T Metrology	200108-0	Kansas City	MO	Calibration
Kingston Environmental Laboratory	200041-0	Lee's Summit	MO	PLM
Larron Laboratory	101415-0	Cape Girardeau	MO	PLM
Mallinckrodt, Inc.	100503-0	Maryland Heights	MO	Dosimetry
Microscopic Analysis, Inc.	101037-0	St. Louis	MO	PLM
OCCU-TEC, Inc.	102025-0	Kansas City	MO	PLM
Union Electric Company, Callaway Plant	100502-0	Fulton	MO	Dosimetry
MS				
Daybrite Lighting (Genlyte Thomas Group) Photometric Laboratory	200016-0	Tupelo	MS	Lighting
MT				
Northern Analytical Laboratories, Inc.	101292-0	Billings	MT	PLM
NC				
Accredited Environmental Technologies, Inc.	200236-0	Leland	NC	PLM
Advanced Energy, Industrial Energy Laboratory	200081-0	Raleigh	NC	Electric Motors
Asbestos Analysis and Information Service, Inc.	101261-0	Four Oaks	NC	PLM
Carolina Environmental, Inc.	101768-0	Cary	NC	PLM
Carolina Power & Light Company, Harris Energy & Enviro. Center	100517-0	New Hill	NC	Dosimetry
Duke Power Company Dosimetry Laboratory	100505-0	Charlotte	NC	Dosimetry
EMC International, Inc.	200094-0	Youngsville	NC	FCC
EMSL Analytical, Inc.	102104-0	Greensboro	NC	PLM
EMSL Analytical, Inc.	102104-0	Greensboro	NC	TEM
IBM Charlotte EMC Facility	200337-0	Charlotte	NC	FCC
IBM RTP PSG EMC Test Labs	200200-0	Research Triangle Park	NC	FCC
Law Engineering and Environmental Services, Inc.	101226-0	Charlotte	NC	PLM
NSI Environmental Solutions, Inc.	200440-0	RTP	NC	PPT
Troxler Radiation Monitoring Svc. a div. of Troxler Elect. Labs	100559-0	Research Triangle Park	NC	Dosimetry
Underwriters Laboratories, Inc.	200246-0	Research Triangle Park	NC	FCC
ND				
A.R.C. Laboratories, Inc.	101832-0	Grand Forks	ND	PLM
NH				
Cabletron Systems, Inc.	200121-0	Rochester	NH	FCC
Dames & Moore, Inc.	101433-0	Salem	NH	PLM
Retlif Testing Laboratories	100267-1	Goffstown	NH	FCC
Sanders A Lockheed Martin Co.	200425-0	Nashua	NH	MIL-STD-462
The Scott Lawson Group, Ltd.	101228-0	Concord	NH	PLM

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
NJ				
Aerospace NYLOK - a subsidiary of the NYLOK Fastener Corporation	200271-0	Hawthorne	NJ	Fasteners
Bell Laboratories, Division Lucent Technologies, Inc.	101965-0	Murray Hill	NJ	PLM
Duro-Test Corporation	200283-0	Clifton	NJ	Lighting
EAI, Inc.	102114-0	Jersey City	NJ	PLM
EMSL Analytical, Inc.	101048-0	Westmont	NJ	PLM
EMSL Analytical, Inc.	101048-0	Westmont	NJ	TEM
EMSL Analytical, Inc.	101048-2	Piscataway	NJ	PLM
EMSL Analytical, Inc.	101048-2	Piscataway	NJ	TEM
Enviro Techniques, Inc.	200024-0	Paterson	NJ	PLM
Environmental Monitoring & Consulting Associates	101087-0	Somerville	NJ	PLM
Fountain Compliance Laboratory	200101-0	Somerset	NJ	FCC
Henry Troemner, LLC	105013-0	Thorofare	NJ	Calibration
Hillmann Environmental Group, L.L.C.	101421-0	Union	NJ	PLM
International Asbestos Testing Laboratory	101165-0	Mt. Laurel	NJ	PLM
International Asbestos Testing Laboratory	101165-0	Mt. Laurel	NJ	TEM
Lucent Technologies, Global Product Compliance Lab	100275-0	Holmdel	NJ	FCC
NAWC-Aircraft Div. Lakehurst Electromagnetic Interference Lab.	200222-0	Lakehurst	NJ	MIL-STD-462
Omega Environmental Services	101289-0	Hackensack	NJ	PLM
PMK Group, Inc.	101301-0	Kenilworth	NJ	PLM
Protocol Analytical Supplies, Inc.	200395-0	Middlesex	NJ	PPT
Spex Certiprep Inc.	200392-0	Metuchen	NJ	PPT
NM				
Assaigai Analytical Laboratories, Inc.	101457-0	Albuquerque	NM	PLM
Eberline Dosimetry Service	100515-0	Albuquerque	NM	Dosimetry
Sandia National Laboratories	105002-0	Albuquerque	NM	Calibration
NV				
Asbestos TEM Laboratories, Inc.	200104-0	Sparks	NV	PLM
Converse Consultants MR, Inc.	102091-0	Reno	NV	PLM
U.S. EPA	200231-0	Las Vegas	NV	Dosimetry
NY				
ABM Environmental Consultants, Inc.	102015-0	Long Island City	NY	PLM
Airtek Environmental Corp.	102011-0	New York	NY	PLM
ALAC	200323-0	New York	NY	PLM
Ambient Labs, Inc.	101618-0	New York	NY	PLM
ATC Associates Inc.	101187-0	New York	NY	PLM
ATC Associates Inc.	101187-0	New York	NY	TEM
Athenica Environmental Services, Inc.	101958-0	Long Island City	NY	PLM
Chopra-Lee, Inc.	200095-0	Grand Island	NY	PLM
Chopra-Lee, Inc.	200095-0	Grand Island	NY	TEM
Con Edison - ChemLab	101558-0	Long Island City	NY	PLM
Con Edison, Indian Point	100538-0	Buchanan	NY	Dosimetry
D/L Laboratories, Inc.	100252-0	New York	NY	Commercial
Dayton T. Brown, Inc.	200422-0	Bohemia	NY	MIL-STD-462

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
Diviersified T.E.S.T. Technologies, Inc.	200340-0	Groton	NY	FCC
Eastern Analytical Services, Inc.	101646-0	Elmsford	NY	PLM
Eastern Analytical Services, Inc.	101646-0	Elmsford	NY	TEM
Eastman Kodak Co.-Regulatory Compliance Center-EMC Facility	200313-0	Rochester	NY	FCC
EMSL Analytical, Inc.	101048-9	New York	NY	PLM
EMSL Analytical, Inc.	101048-9	New York	NY	TEM
EMSL Analytical, Inc.	101048-10	Carle Place	NY	PLM
EMSL Analytical, Inc.	101048-10	Carle Place	NY	TEM
EMSL Analytical, Inc.	200056-0	Williamsville	NY	PLM
EMSL Analytical, Inc.	200056-0	Williamsville	NY	TEM
EMSL Analytical, Inc.	200333-0	Elmsford	NY	PLM
EMSL Analytical, Inc.	200333-0	Elmsford	NY	TEM
Enviro-Probe, Inc.	101222-0	Bronx	NY	PLM
Environmental Testing Laboratories, Inc.	101937-0	Farmingdale	NY	TEM
Fairway Testing Company, Inc.	100340-0	Stony Point	NY	Construction
Galson Laboratories	101375-0	East Syracuse	NY	PLM
GE Industrial Systems	200029-0	Rome	NY	Calibration
Ginna Nuclear Station	100514-0	Ontario	NY	Dosimetry
IBM Endicott EMC Lab	200418-0	Endicott	NY	FCC
IBM Hudson Valley Acoustics Laboratory	100323-0	Poughkeepsie	NY	Acoustics
Industrial Acoustics Company, Inc., Aero-Acoustics Laboratory	100404-0	Bronx	NY	Acoustics
Intertek Testing Services NA Inc.	100402-0	Cortland	NY	Lighting
Intertek Testing Services NA Inc.	100402-0	Cortland	NY	Thermal Insl.
JLC Environmental Consultants, Inc.	101953-0	New York	NY	PLM
KAM Consultants	102047-0	Long Island City	NY	PLM
KAM Consultants	102047-0	Long Island City	NY	TEM
Lockheed Martin Control Systems EMI Laboratory	200142-0	Johnson City	NY	MIL-STD-462
New York Testing Laboratories, Inc.	101332-0	Bay Shore	NY	PLM
New York Testing Laboratories, Inc.	101332-0	Bay Shore	NY	TEM
NGC Testing Services, National Gypsum Research Center	200291-0	Buffalo	NY	Acoustics
Niche Analysis, Inc.	102057-0	Mount Vernon	NY	PLM
NY Environmental & Analytical Labs, Inc.	101967-0	Port Washington	NY	PLM
NYS DOH Environmental Laboratory Approval Program	200387-0	Albany	NY	PPT
Rapid Environmental Management, Inc.	101974-0	Great Neck	NY	PLM
Retlif Testing Laboratories	100267-0	Ronkonkoma	NY	FCC
Retlif Testing Laboratories	100267-0	Ronkonkoma	NY	MIL-STD-462
Scientific Laboratories, Inc.	101904-1	New York	NY	PLM
Scientific Laboratories, Inc.	101904-1	New York	NY	TEM
Taylor Environmental Group, Inc.	102101-0	Floral Park	NY	PLM
Testing Mechanics Corp.	102001-0	Seaford	NY	PLM
Testwell Laboratories, Inc./Testwell Industries, Inc.	200083-0	Ossining	NY	Construction
Testwell Laboratories, Inc./Testwell Industries, Inc.	200083-0	Ossining	NY	PLM
Testwell Laboratories, Inc./Testwell Industries, Inc.	200083-0	Ossining	NY	TEM
Underwriters Laboratories, Inc.	100255-0	Melville	NY	FCC

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
Vartest Laboratories, Inc.	200027-0	New York	NY	Carpet
WKP Laboratories, Inc.	101950-0	New York City	NY	PLM
OH				
American Electric Power, Environmental Laboratory	102102-0	Columbus	OH	PLM
Analytical Products Group, Inc.	200384-0	Belpre	OH	PPT
DataChem Laboratories	101917-0	Cincinnati	OH	PLM
DataChem Laboratories	101917-0	Cincinnati	OH	TEM
EA Group	101019-0	Mentor	OH	PLM
Fluor Daniel Fernald, Inc., Analytical Laboratory Services	102010-0	Cincinnati	OH	PLM
GE Lighting- Engineering Support - NA	100398-0	Cleveland	OH	Lighting
Gelles Laboratories, Division, CC Technologies	101170-0	Dublin	OH	PLM
Gelles Laboratories, Division, CC Technologies	101170-0	Dublin	OH	TEM
Integrex Testing Systems - Product Testing Laboratory	100109-0	Granville	OH	Acoustics
Integrex Testing Systems - Product Testing Laboratory	100109-0	Granville	OH	Thermal Insul.
m.a.c. Paran Consulting Services, Inc.	102108-0	Amelia	OH	PLM
NASA-Lewis Research Center	200130-0	Cleveland	OH	PLM
NOVA Machine Products	200202-0	Middleburg Heights	OH	Fasteners
Portsmouth ES&H Analytical	101383-0	Piketon	OH	PLM
ToITest, Inc.	101594-0	Toledo	OH	PLM
Tremco, Inc. - Roofing Division, An RPM Company	101188-0	Beachwood	OH	PLM
Webber Gage Division / L.S. Starrett Co.	200038-0	Cleveland	OH	Calibration
OK				
Hollytex Carpet Mills, Inc.	100247-0	Anadarko	OK	Carpet
Oklahoma Dept. of Environmental Quality-State Environmental Lab	102112-0	Oklahoma City	OK	PLM
QuanTEM Laboratories, LLC	101959-0	Oklahoma City	OK	PLM
QuanTEM Laboratories, LLC	101959-0	Oklahoma City	OK	TEM
SGS U.S. Testing Company, Inc.	100416-0	Tulsa	OK	Commercial
SGS U.S. Testing Company, Inc.	100416-0	Tulsa	OK	Thermal Insul.
OR				
InFocus Systems, Inc.	200152-0	Wilsonville	OR	FCC
Northwest EMC, Inc.	200059-0	Hillsboro	OR	FCC
PBS Environmental Building Consultants, Inc.	101910-0	Portland	OR	PLM
Professional Service Industries, Inc., Pittsburgh Test. Lab. Div.	100430-0	Eugene	OR	Wood Prod.
Timberco, Inc.- dba TECO	100420-0	Eugene	OR	Wood Prod.
Willamette Industries, Inc. West Coast Development Lab	200045-0	Wilsonville	OR	Commercial

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
PA				
Accredited Environmental Technologies, Inc.	101051-0	Media	PA	PLM
AGX, Inc.	101578-0	Cranberry Township	PA	PLM
Allegheny Asbestos Analysis	101704-0	Carnegie	PA	PLM
AmerGen	100510-0	Middletown	PA	Dosimetry
American Testing Laboratories, Inc.	100146-0	Lancaster	PA	Construction
Analab, LLC	200260-0	Sterling	PA	FCC
Architectural Testing Inc.	200361-0	York	PA	Acoustics
Armstrong Acoustic Labs, Armstrong World Ind., Inc. Innov. Center	100228-0	Lancaster	PA	Acoustics
Criterion Laboratories, Inc.	102046-0	Bensalem	PA	PLM
Dodge-Regupol, Inc. Laboratory	200030-0	Lancaster	PA	Commercial
Duquesne Light Company, Beaver Valley Power Station	100521-0	Shippingport	PA	Dosimetry
GA Environmental Services, Inc.	101996-0	Eddystone	PA	PLM
IIT Research Institute/R&B Operation	100280-0	West Conshohocken	PA	FCC
IIT Research Institute/R&B Operation	100280-0	West Conshohocken	PA	MIL-STD-462
Instrument Specialties Co., Inc.	200076-0	Delaware Water Gap	PA	FCC
Kevco Services, Inc.	101941-0	Butler	PA	PLM
Levecque Technical Center	100101-0	Blue Bell	PA	Thermal Insl.
Michael & Associates	100427-0	State College	PA	Acoustics
PA DEP Bureau of Laboratories	101323-0	Harrisburg	PA	PLM
Philip Analytical Services	101262-0	Reading	PA	PLM
Philip Analytical Services	101262-0	Reading	PA	TEM
PP&L, Inc.	100554-0	Allentown	PA	Dosimetry
PSI	101350-0	Pittsburgh	PA	PLM
PSI	101350-0	Pittsburgh	PA	TEM
Republic Technologies International, Franklin Chemical Laboratory	200148-0	Johnstown	PA	Fasteners
RJ Lee Group, Inc.	101208-0	Monroeville	PA	PLM
RJ Lee Group, Inc.	101208-0	Monroeville	PA	TEM
Volz Environmental Services, Inc.	101269-0	Pittsburgh	PA	PLM
PR				
AES International	200051-0	Santurce	PR	PLM
RI				
RI Analytical Laboratories, Inc.	101440-0	Warwick	RI	PLM
SNB Laboratory	200308-0	Cumberland	RI	Fasteners
Ultra Scientific, Inc.	200379-0	North Kingston	RI	PPT
SC				
Compliance Test Laboratories, Inc.	200237-0	Liberty	SC	FCC
Davis & Floyd, Inc.	101410-0	Greenwood	SC	PLM
South Carolina Department of Health & Environmental Control	101572-0	Columbia	SC	PLM
TN				
A.O. Smith (Lexington) Engineering Laboratory	200053-0	Lexington	TN	Electric Motors
Knoxville Branch Laboratory-TN Dept. Health	101496-0	Knoxville	TN	PLM

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
Leland-Powell Fasteners, Inc. Fastener Testing Laboratory	200171-0	Martin	TN	Fasteners
National Econ Corporation	200047-0	Memphis	TN	PLM
Oak Ridge Metrology Center	105000-0	Oak Ridge	TN	Calibration
Philips Testing Service	200409-0	Knoxville	TN	FCC
R & D Services, Inc.	200265-0	Cookeville	TN	Thermal Insl.
Tennessee Valley Authority External Dosimetry Service	100516-0	Soddy-Daisy	TN	Dosimetry
TX				
A & B Environmental Services, Inc.	101793-0	Houston	TX	PLM
Acoustic Systems Acoustical Research Facility	100286-0	Austin	TX	Acoustics
Atomic Energy Industrial Laboratory of the Southwest, Inc.	100556-0	Houston	TX	Dosimetry
CAM Environmental Services, Inc.	200240-0	Pasadena	TX	PLM
Compaq Computer Corp. Emissions Control Lab	200058-0	Houston	TX	FCC
Compaq Corporate Metrology	200154-0	Houston	TX	Calibration
Crisp Analytical Laboratory	200349-0	Carrollton	TX	PLM
Crisp Analytical Laboratory	200349-0	Carrollton	TX	TEM
Dell Regulatory Test Laboratories	200052-0	Round Rock	TX	Acoustics
Dell Regulatory Test Laboratories	200052-0	Round Rock	TX	FCC
Dolphin Environmental Consultants	102086-0	Stafford	TX	PLM
EcoSystems Environmental, Inc.	101162-0	Carrollton	TX	PLM
EMSL Analytical, Inc.	102106-0	Houston	TX	PLM
EMSL Analytical, Inc.	102106-0	Houston	TX	TEM
EMSL Analytical, Inc.	200034-0	Dallas	TX	PLM
EMSL Analytical, Inc.	200034-0	Dallas	TX	TEM
Envirotest, Inc.	101595-0	Houston	TX	PLM
ERI Consulting Engineers, Inc.	101232-0	Tyler	TX	PLM
HIH Laboratory, Inc.	101233-0	Webster	TX	PLM
IBM Austin EMC	200112-0	Austin	TX	FCC
Jimmie Ann Bolton	101735-0	Austin	TX	PLM
KTL Dallas, Inc.	100426-0	Lewisville	TX	FCC
Law Engineering and Environmental Services, Inc.	101152-0	Houston	TX	PLM
Law Engineering and Environmental Services, Inc.	101973-0	Dallas	TX	PLM
McKee Environmental Health, Inc.	101135-0	Friendswood	TX	PLM
Metroplex Metrology Lab, Inc.	200262-0	Fort Worth	TX	Calibration
Micro Air of Texas, Inc.	102008-0	Houston	TX	PLM
National Technical Systems	200245-0	Plano	TX	FCC
Omni Environmental, Inc.	102061-0	Austin	TX	PLM
Professional Testing (EMI), Inc.	200062-0	Round Rock	TX	FCC
Quest MicroAnalytics	200249-0	Dallas	TX	PLM
South Texas Project Dosimetry Laboratory	100519-0	Wadsworth	TX	Dosimetry
Steve Moody Micro Services, Inc.	102056-0	Carrollton	TX	PLM
Steve Moody Micro Services, Inc.	102056-0	Carrollton	TX	TEM
Sun City Analytical, Inc.	101870-0	El Paso	TX	PLM
Toshiba/Houston Test Laboratory	200088-0	Houston	TX	Electric Motors
TU Electric-Comanche Peak Steam Electric Station	100528-0	Glen Rose	TX	Dosimetry

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LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
US Air Force Center for Radiation Dosimetry	100548-0	Brooks AFB	TX	Dosimetry
Walker Bolt Manufacturing Co.	200126-0	Houston	TX	Fasteners
Water, Earth Solutions & Technologies, Inc.	102043-0	Dallas	TX	PLM
Wayne Langston, Inc.	200021-0	League City	TX	FCC
UT				
Communication Certification Laboratory	100272-0	Salt Lake City	UT	FCC
Dixon Information Inc.	101012-0	South Salt Lake	UT	PLM
VA				
Alloy & Stainless Testing	200353-0	Virginia Beach	VA	Fasteners
American Medical Laboratories, Inc.	101136-0	Chantilly	VA	PLM
Applied Environmental, Inc.	101611-0	Reston	VA	PLM
Cygnacom Solutions, Inc. CEAL and SEL Laboratories	200002-0	McLean	VA	Cryptographic
Environmental Hazards Services, L.L.C.	101882-0	Richmond	VA	PLM
Environmental Testing and Monitoring Services, Inc.	200131-0	Virginia Beach	VA	PLM
Froehling & Robertson, Inc.	102060-0	Richmond	VA	PLM
Genicom Corporation	200342-0	Waynesboro	VA	FCC
Hubbell Lighting Photometric Laboratory	200020-0	Christiansburg	VA	Lighting
Industrial Laboratory	102115-0	Portsmouth	VA	PLM
Labcorp Analytics Laboratory	101004-0	Richmond	VA	PLM
Marine Chemist Service, Inc.	101425-0	Newport News	VA	PLM
Newport News Shipbuilding Radiological Control Department	100561-0	Newport News	VA	Dosimetry
Proxtronics, Inc.	100573-0	Burke	VA	Dosimetry
Rhein Tech Laboratories, Inc.	200061-0	Herndon	VA	FCC
RJ Lee Group, Inc.	101208-3	Manassas	VA	PLM
RJ Lee Group, Inc.	101208-3	Manassas	VA	TEM
Schneider Laboratories, Inc.	101150-0	Richmond	VA	PLM
Scientific Laboratories, Inc.	101904-0	Midlothian	VA	PLM
Scientific Laboratories, Inc.	101904-0	Midlothian	VA	TEM
SEAS, Inc.	101185-0	Blacksburg	VA	PLM
State of Virginia Metrology Lab	105007-0	Richmond	VA	Calibration
TC Analytics, Inc.	101672-0	Norfolk	VA	PLM
VT				
Microcheck, Inc.	200391-0	Northfield Falls	VT	PPT
Vermont Fasteners Manufacturing	200254-0	Swanton	VT	Fasteners
WA				
APA - The Engineered Wood Association Research Center	100423-0	Tacoma	WA	Wood Prod.
Battelle - Pacific Northwest National Laboratory	200216-0	Richland	WA	Dosimetry
BCAG Fastener Quality Test Lab Everett Site	200292-0	Seattle	WA	Fasteners
Clayton Environmental Consultants	101106-0	Seattle	WA	PLM
Fluke Corporation Primary Standards Laboratory	105016-0	Everett	WA	Calibration
Key Tronic Corp.	200096-0	Spokane	WA	FCC
Lab/Cor, Inc.	101920-0	Seattle	WA	TEM
Mountain Laboratories	101890-0	Spokane	WA	PLM

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Naval Nuclear Propulsion Program Directorate, Washington, DC	100565-0	Bremerton	WA	Dosimetry
NetCompliance Products & Services, Inc.	101869-0	Vancouver	WA	PLM
Nowicki & Associates, Inc.	200322-0	Federal Way	WA	PLM
NVL Laboratories, Inc.	102063-0	Seattle	WA	PLM
Pacific Northwest National Laboratory / Battelle	105020-0	Richland	WA	Calibration
Pacific Rim Environmental, Inc.	101631-0	Tukwila	WA	PLM
Prezant Associates, Inc.	101886-0	Seattle	WA	PLM
Puget Sound Naval Shipyard	101539-0	Bremerton	WA	PLM
Safe Environment of America, Inc.	102021-0	Kent	WA	PLM
Underwriters Laboratories Inc.	200214-0	Camas	WA	FCC
United States Dosimetry Technology, Inc.	100571-0	Richland	WA	Dosimetry
Waste Management Federal Services of Hanford, Inc.	101058-0	Richland	WA	PLM

WI

AIResearch, Inc.	101868-0	Wauwatosa	WI	PLM
Aurora Consolidated Laboratories	101661-0	West Allis	WI	PLM
Hufcor Laboratory	100239-0	Janesville	WI	Acoustics
Intertek Testing Services NA Inc.	200031-0	Middleton	WI	Thermal Insl.
Marathon Electric - Wausau Engineering Lab.	200134-0	Wausau	WI	Electric Motors
Micro Analytical, Inc.	101247-0	Milwaukee	WI	PLM
PFS Corporation	100421-0	Madison	WI	Wood Prod.
Rice Lake Weighing Systems	105001-0	Rice Lake	WI	Calibration
Twin Ports Testing, Inc.	102083-0	Superior	WI	PLM
Wisconsin Occupational Health Laboratory	101109-0	Madison	WI	PLM

WV

Environmental Services International, Inc.	101306-0	St. Albans	WV	PLM
Philips Lighting Corporate Calibration & Standards Laboratory	100399-0	Fairmont	WV	Lighting
Triad Environmental Consulting, Inc.	102073-0	Huntington	WV	PLM

BRAZIL

Acos Villares SA - Chemical Laboratory	200394-0	Pindamonhangaba SP	BRAZIL	Fasteners
Belgo-Mineira Chemical Laboratory	200196-0	35.930-900 Joao Monlevade,	BRAZIL	Fasteners

CANADA

Celestica International Inc.	200055-0	North York, Ontario	CANADA	FCC
Chatfield Technical Consulting Limited	101103-0	Mississauga Ontario	CANADA	PLM
CSA International	100322-0	Etobicoke Ontario	CANADA	Commercial
CSA International	100322-0	Etobicoke Ontario	CANADA	FCC
DOMUS ITSL, ecommerce+, LGS Group, Incorporated	200017-0	Ottawa Ontario	CANADA	Cryptographic
Electronics Test Centre	200282-0	Kanata, Ont.	CANADA	FCC
Ingersoll Fasteners	200208-0	Ingersoll Ontario	CANADA	Fasteners
Ivaco Rolling Mills, Chemistry Laboratory	200143-0	L'Orignal Ontario	CANADA	Fasteners
KTL Ottawa Inc.	100351-0	Ottawa Ontario	CANADA	FCC
LEX Scientific Inc.	101949-0	Guelph Ontario	CANADA	PLM
Nortel Networks BVW Lab	200098-0	Belleville, Ontario	CANADA	FCC
Pinchin Environmental Ltd.	101270-0	Mississauga Ontario	CANADA	PLM
Small IAC Test Laboratory	200287-0	Peterborough, ON	CANADA	Electric Motors

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UltraTech Engineering Labs Inc.	200093-0	Oakville, Ontario	CANADA	FCC
United Testing Sys. Canada, Ltd. Dynamic Testing Sys. Int. Inc.	200311-0	Concord Ontario	CANADA	Calibration
Vibro-Acoustics Laboratory	100424-0	Scarborough Ontario	CANADA	Acoustics
CHINA				
Audix TEchnology (Shanghai) Co., Ltd.	200371-0	Shanghai	CHINA	FCC
AUDIX Technology (Shenzhen) Co., Ltd.	200372-0	Shenzhen, Guangdong	CHINA	FCC
Shanghai Testing & Inspection Institute for Electrical Equipment	200407-0	Shanghai	CHINA	Electric Motors
INDIA				
Sundram Fasteners Limited (Inhouse test laboratory)	200212-0	Chennai (Madras), Tamil	INDIA	Fasteners
Sundram Fasteners Limited Chemical Testing Laboratory	200256-0	Andhra Pradesh	INDIA	Fasteners
JAPAN				
A-Pex International Co., Ltd. Yamakita Laboratory	200441-0	Ashigarakami-gun	JAPAN	FCC
A-Pex International Co., Ltd. Yokowa Laboratory	200109-0	Mie-ken	JAPAN	FCC
Akzo Kashima Ltd. Kakegawa EMC Test Site	100290-2	Shizuoka	JAPAN	FCC
Akzo Kashima Ltd., Kashima EMC Site	100290-0	Ibaraki	JAPAN	FCC
Akzo Kashima Ltd., Kawasaki Technical Center	200300-0	Kawasaki	JAPAN	FCC
Akzo Kashima Ltd., Matsuda EMC Test Site	100290-4	Kanagawa	JAPAN	FCC
Akzo Kashima Ltd., Nagano EMC Test Site	100290-3	Nagano	JAPAN	FCC
Akzo Kashima Ltd., Tochigi EMC Test Site	100290-5	Tochigi	JAPAN	FCC
Aoyama Fastener Laboratory	200213-0	Niwa-gun, Aichi Prefecture	JAPAN	Fasteners
Chemitox EMC Research, Inc.	200120-0	Yamanashi-ken	JAPAN	FCC
Cosmos Corporation	200151-0	Watarai-gun Mie	JAPAN	FCC
EMC Kashima Corporation	200070-0	Chiba-ken	JAPAN	FCC
EMM Office Yokohama Tech. Center Murata Mfg. Co., Ltd.	200263-0	Kanagawa	JAPAN	FCC
Fuji Buhin Kogyo Kabushiki Kaisha	200203-0	Ohta Gunma	JAPAN	Fasteners
Fujitsu Evaluation Engineering Laboratory	200281-0	Numazu, Shizuoka-Pref.	JAPAN	FCC
Fujitsu General EMC Laboratory	200373-0	Kawasaki	JAPAN	FCC
Hitachi Information Technology Co., Ltd.	200186-0	Kanagawa	JAPAN	FCC
IBM Yamato EMC Engineering	200198-0	Yamato Kanagawa	JAPAN	FCC
IPS Corporation	200012-0	Nagano	JAPAN	Calibration
IPS Corporation	200012-0	Nagano	JAPAN	FCC
Japan Quality Assurance Org. Chubu Testing Center Shikatsu Branch	200190-0	Aichi	JAPAN	FCC
Japan Quality Assurance Org. Safety Testing Ctr. Tsuru EMC Branch	200192-0	Yamanashi	JAPAN	FCC
Japan Quality Assurance Organization	200191-0	Osaka	JAPAN	FCC
Kita-Kansai Testing Center				
Japan Quality Assurance Organization Safety Testing Center	200189-0	Tokyo	JAPAN	FCC
Kansai Electronic Industry Development Center, Ikoma Testing Lab.	200207-0	Ikoma Nara	JAPAN	FCC
Kobelco Research Institute, Inc. Stock	200169-0	Kobe	JAPAN	Fasteners

INDEX C. LISTING BY STATE/COUNTRY - continued

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
Company				
Kyowa Kogyosyo Co., Ltd. Test Laboratory	200274-0	Komatsu City, Ishikawa	JAPAN	Fasteners
Kyushu Matsushita Electric Test Lab EMC Center	200364-0	Tosu-shi Saga-ken	JAPAN	FCC
Matsushita EMC Center	100428-0	Sasayama, Hyogo	JAPAN	FCC
Meidoh Laboratory	200239-0	Toyota, Aichi	JAPAN	Fasteners
Minebea Co., Ltd. Fujisawa Manufacturing Unit	200229-0	Fujisawa, Kanagawa	JAPAN	Fasteners
NEC Kofu, Ltd., EMC Center	200433-0	Yamanashi-shi	JAPAN	FCC
O & K Company Limited, Osaka Test Center	200166-0	Osaka-Shi	JAPAN	Fasteners
Ohtama Co., Ltd. Yamanashi EMC Test Site	200175-0	Yamanashi	JAPAN	FCC
Okai Iron Works Co., Ltd.	200299-0	Izumisano Osaka	JAPAN	Fasteners
Okawa Laboratory	200296-0	Naka-gun, Ibaraki-ken	JAPAN	Fasteners
ORIX Rentec EMC Center; Electromagnetic Compatibility	200404-0	Aiko-Gun, Kanagawa	JAPAN	FCC
PFU TECHNOCONSUL EMC Center	200259-0	Ishikawa-Ken	JAPAN	FCC
Piolax Inc.	200411-0	Mooka-shi Tochigi-ken	JAPAN	Fasteners
Ricoh Company LTD. Ohmori Acoustics Test Site	200345-0	Tokyo	JAPAN	Acoustics
Ricoh Company, Ltd. Ohmori EMC Center	200163-0	Tokyo	JAPAN	FCC
Sannohashi Corporation	200205-0	Yashioshi, Saitama-ken	JAPAN	Fasteners
Seiko Epson Corporation	200157-0	Shiojiri-City Nagano	JAPAN	FCC
Sony Kisarazu EMC Test Laboratory	200432-0	Kisarazu Chiba	JAPAN	FCC
Sony Kohda EMC Test Laboratory	200398-0	Nukata-gun Aichi	JAPAN	FCC
Sony Minokamo EMC Site	200368-0	Gifu-Pref.	JAPAN	FCC
Sumitomo Metal Technology, Inc. Kokura Division	200215-0	Kitakyushu	JAPAN	Fasteners
TDK Corporation's 10m Anechoic Chamber	200309-0	Ichikawa-shi, Chiba-ken	JAPAN	FCC
TDK Corporation's Chikumagawa Open Site	200319-0	Saku-shi, Nagano-ken	JAPAN	FCC
TEAC Corporation EMC Center	200362-0	Saitama-ken	JAPAN	FCC
Tokin EMC Engineering Co., Ltd. Kawasaki Facility	200217-0	Kawasaki-city, Kanagawa	JAPAN	FCC
Tokin EMC Engineering Co., Ltd. Nagoya Testing Laboratory	200219-0	Daian-cho, Inabe-gun, Mie	JAPAN	FCC
Tokin EMC Engineering Co., Ltd. Osaka Testing Laboratory	200218-0	Sanda-city, Hyogo	JAPAN	FCC
Tokin EMC Engineering Co., Ltd. Tsukuba Testing Laboratory	200221-0	Tsukuba-city, Ibaraki	JAPAN	FCC
Toshiba Corp., Ome Operations	200107-0	Ome Tokyo	JAPAN	FCC
Zacta Technology Corporation Yonezawa Testing Center	200306-0	Yonezawa-shi Yamagata	JAPAN	FCC

KOREA

Korea Testing & Research Inst. for Chemical Industry-Inchon Off.	200177-0	Inchon	KOREA	Fasteners
Korea Tokin EMC Engineering Co., Ltd.	200220-0	Namyangju-si, Kyunggi-Do	KOREA	FCC
LG Electronics, Inc., Quality and Reliability Center	200040-0	Seoul	KOREA	FCC

MEXICO

Protsa, S.A. de C.V.	200261-0	Mexico City	MEXICO	Fasteners
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INDEX C. LISTING BY STATE/COUNTRY - continued

LABORATORY NAME	NVLAP LAB CODE	CITY	STATE/ COUNTRY	FIELD
TAIWAN				
Advance Data Technology Corporation	200102-0	Taipei Hsien	TAIWAN	FCC
Advance Data Technology Corporation Hsin Chu EMC Laboratory	200376-0	Hsin Chu Hsien	TAIWAN	FCC
Electronic Research & Service Organization/ITRI	200118-0	Chutung Hsinchu	TAIWAN	FCC
Electronics Testing Center, Taiwan	200133-0	Taoyuan Hsien	TAIWAN	FCC
Fong Preat Industrial Co., Ltd.	200288-0	Kaohsiung Hsien	TAIWAN	Fasteners
Fwu Kuang Enterprises Co., Ltd.	200286-0	Tainan Hsien	TAIWAN	Fasteners
Global EMC Standard Tech. Corp.	200085-0	Taipei County	TAIWAN	FCC
HomeTek Technology Inc.	200331-0	Taipei Shien	TAIWAN	FCC
International Standards Laboratory	200234-0	Hsichih Chen, Taipei	TAIWAN	FCC
Neutron Engineering Inc.	200145-0	Taipei	TAIWAN	FCC
PEP Testing Laboratory	200097-0	Taipei Hsien	TAIWAN	FCC
Philips Electronics Industries (TAIWAN) Ltd.	200137-0	Chungli, Taoyuan	TAIWAN	FCC
Quietek Corporation	200347-0	Hsin-Chu Country	TAIWAN	FCC
Radiation Laboratory, Taiwan Power Company	100562-0	Shihmen, Taipei	TAIWAN	Dosimetry
San Shing Hardware Works Co., Ltd. Test Laboratory	200158-0	Tainan	TAIWAN	Fasteners
Spectrum Research & Testing Laboratory, Inc.	200099-0	Chung-Li, Taoyuan	TAIWAN	FCC
Sporton International, Inc.	200079-0	Taipei Hsien	TAIWAN	FCC
Taiwan Tokin EMC Eng. Corp.	200077-0	Taipei	TAIWAN	FCC
TAO/TA2 EMC Laboratory	200140-0	Taoyuan	TAIWAN	FCC
TECO Electric & Machinery Co., Ltd.	200378-0	Taoyuan	TAIWAN	Electric Motors
Training Research Co., Ltd.	200174-0	Taipei Hsien	TAIWAN	FCC
UNITED KINGDOM				
Marconi Electronic Systems Environmental and EMC Test Centre	200304-0	Kent	UNITED KINGDOM	MIL-STD-462

INDEX

D

LISTING OF
TESTING
LABORATORIES
BY NVLAP
LAB CODE

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE**NVLAP LAB CODE 100101-0****Levecque Technical Center**

1400 Union Meeting Road
P.O. Box 1100
Blue Bell, PA 19422-0761
Contact: Mr. Peter Herault
Phone: 610-341-6376
Fax: 610-341-6291
E-Mail: pete.herault@CT.SGCNA.com

Thermal Insulation Materials

Accreditation Valid Through: December 31, 2000

NVLAP

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Canadian Standards (Specifications)

01/W01	CAN/CGSB-51.2-M88
01/W03	CAN/CGSB-51.10-92
01/W04	CAN/CGSB-51.11-92
01/WNOT	Note: Scope excludes CGSB 51-GP-52M; however, ASTM E96 & ASTM D828 are included where specified in the Canadian Standards (01/W02-W04)

Corrosiveness

01/C02	16 CFR-Part 1209.5
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Flammability

01/F01	TAPPI T461-OM
01/F05	ASTM E136
01/F07	16 CFR-Part 1209.6
01/F08	16 CFR-Part 1209.7

Mass, Density, and Dimensional Stability

01/D01	ASTM C136
01/D02	ASTM C167
01/D08	ASTM C302
01/D09	ASTM C303
01/D11	ASTM C356
01/D12	ASTM C411
01/D24	ASTM C739 (Sec. 12)
01/D26	16 CFR-Part 1209.4
01/D27	ASTM C739 (Sec. 8)
01/D31	MIL-I-22344D (Para. 4.6.3, 4.6.4.)

Related Material Properties

01/V04	ASTM E96
01/V07	ASTM C1104/C1104M

Strength

01/S01b	ASTM C165 (Proc. B)
01/S08	ASTM C446
01/S10	ASTM D828
01/S15	ASTM C421
01/S16	ASTM C1101/C1101M

Thermal Resistance

01/T01	ASTM C177
01/T04	ASTM C236
01/T05	ASTM C335
01/T06	ASTM C518
01/T09	ASTM C653
01/T10	ASTM C687

NVLAP LAB CODE 100103-0**Dow Chemical N. America Foam Products****Research, Prod. Perf. Lab.**

1605 Joseph Drive
Midland, MI 48674
Contact: Ms. Linda Hess
Phone: 517-636-5069
Fax: 517-636-0194
E-Mail: lindaess@dow.com

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Mass, Density, and Dimensional Stability

01/D07	ASTM C272
01/D18	ASTM D1622
01/D19	ASTM D2126
01/D23	ASTM D2842

Related Material Properties

01/V04	ASTM E96
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Strength

01/S02	ASTM C203
01/S07	ASTM C273
01/S11	ASTM D1621 (Proc. A of ASTM Practice D618)

Thermal Resistance

01/T06	ASTM C518
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NVLAP LAB CODE 100104-0**NAHB Research Center, Inc.**

400 Prince George's Boulevard
Upper Marlboro, MD 20774-8731
Contact: Mr. Thomas M. Kenney, P.E.
Phone: 301-249-4000
Fax: 301-218-8827
E-Mail: tkenney@nahbrc.org
URL: <http://www.nahbrc.org>

Commercial Products Testing

Accreditation Valid Through: December 31, 2000

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<i>Code</i>	<i>Designation</i>
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Paints and Related Coatings and Materials

09/A20	ASTM D2244
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Plastics

15/A01	ASTM D256
15/A06	ASTM D638
15/A10	ASTM D790
15/A18	ASTM D2565
15/A19	ASTM D2583
15/A31	ASTM D570
15/A32	ASTM D792

Plumbing

19/M01	ANSI/CABO A117.1 (Sec. 4.24)
19/M02	ASME/ANSI A112.19.7M (Sec. 5, 7)
19/M03	ASME/ANSI A112.19.8M (Sec. 4, 5)
19/M04	ASTM F446
19/M05	ASTM F462

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

19/P01	ANSI Z124.1 (Sec. 4, 5, 6)
19/P02	ANSI Z124.2 (Sec. 4, 5, 6)
19/P03	ANSI Z124.3 (Sec. 4, 5, 6)
19/P03a	ICPA-SS-1 (Sec. 4, 5, 6)
19/P04	ANSI Z124.4 (Sec. 4, 5)
19/P05	ANSI Z124.4 (Sec. 8) per ASME A112.19.6M (Sec. 7.1)
19/P06	ANSI/IAPMO Z124.6 (Sec. 4, 5, 6)
19/P07	ANSI/IAPMO Z124.8 (Sec. 4, 5)
19/V01	ASME A112.19.2M (Sec. 7.1)
19/V02	ASME A112.19.2M (Sec. 7.2)
19/V03	ASME A112.19.2M (Sec. 7.3)
19/V04	ASME A112.19.2M (Sec. 7.4)
19/V06	ASME A112.19.2M (Sec. 7.7)
19/W01	ASME A112.19.6 (Sec. 7.1.2)
19/W02	ASME A112.19.6 (Sec. 7.1.3)
19/W03	ASME A112.19.6 (Sec. 7.1.4)
19/W04	ASME A112.19.6 (Sec. 7.1.5)
19/W05	ASME A112.19.6 (Sec. 7.1.6)
19/W06	ASME A112.19.6 (Sec. 7.1.7)
19/W07	ASME A112.19.6 (Sec. 7.1.8)
19/W08	ASME A112.19.6 (Sec. 7.1.9)

Thermal Insulation Materials

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*NVLAP**Code Designation***Mass, Density, and Dimensional Stability**

01/D02	ASTM C167
01/D13	ASTM C519
01/D27	ASTM C739 (Sec. 8)

Thermal Resistance

01/T06	ASTM C518
01/T09	ASTM C653
01/T10	ASTM C687

NVLAP LAB CODE 100108-0**TSi, Testing Services, Inc.**

817 Showalter Avenue
P.O. Box 2041
Dalton, GA 30721
Contact: Mr. Erle W. Miles, Jr.
Phone: 706-226-1400
Fax: 706-226-6118
E-Mail: emiles@alltel.net
URL: <http://www.testing1-2-3.com>

Carpet and Carpet Cushion

Accreditation Valid Through: December 31, 2000

*NVLAP**Code Designation***Tests Applicable to Carpet Cushion**

03/U01a	ASTM D3574 (Sec. 8.2 & Test A)
03/U01b	ASTM D3676 (Secs. 10-12)
03/U02	ASTM D297
03/U03	ASTM D629 (Sec. 10)
03/U04	ASTM D629 (Secs. 13-22)
03/U05	ASTM D629 (Secs. 23-27)
03/U06	ASTM D1667 (Suffix B)
03/U07	ASTM D3574 (Test C)
03/U08	ASTM D3574 (Test D)
03/U09	ASTM D3574 (Test E)

03/U10	ASTM D3676 (Sec.13)
03/U11	ASTM D3676 (Sec.14)
03/U12	ASTM D3676 (Sec.15)
03/U13	ASTM D3676 (Sec.16)

Tests Applicable to Carpet and Carpet Cushion

03/T01	AATCC 16 (Option E)
03/T02	ASTM D2646 (Secs. 16-24)
03/T04	16 CFR Part 1630 (FF-1-70)

Tests Applicable to Carpets

03/G01	AATCC 20
03/G02	AATCC 20A
03/G03	AATCC 134
03/G04	AATCC 165
03/G05	ASTM D418 (Sec. 8)
03/G06	ASTM D418 (Sec. 9)
03/G07	ASTM D418 (Secs. 10-11)
03/G08	ASTM D418 (Sec. 13)
03/G09	ASTM D1335
03/G10	ASTM D3936
03/G11	ASTM D5252
03/G12	ASTM E648
03/G13	ASTM E662
03/G14	Fed Spec, DDD-C-0095A

NVLAP LAB CODE 100109-0**Integrex Testing Systems - Product Testing Laboratory**

2790 Columbus Road, Route 16
Granville, OH 43023-1200
Contact: Mr. J. Michael Stair
Phone: 740-321-7053
Fax: 740-321-4080
E-Mail: mike.stair@owenscorning.com

Thermal Insulation Materials

Accreditation Valid Through: December 31, 2000

*NVLAP**Code Designation***Flammability**

01/F02	ASTM E84
01/F05	ASTM E136
01/F07	16 CFR-Part 1209.6
01/F08	16 CFR-Part 1209.7

Mass, Density, and Dimensional Stability

01/D02	ASTM C167
01/D08	ASTM C302
01/D09	ASTM C303
01/D11	ASTM C356
01/D12	ASTM C411
01/D24	ASTM C739 (Sec. 12)
01/D27	ASTM C739 (Sec. 8)

Related Material Properties

01/V04	ASTM E96
01/V07	ASTM C1104/C1104M

Strength

01/S01a	ASTM C165 (Proc. A)
01/S02	ASTM C203
01/S08	ASTM C446

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Thermal Resistance**

01/T01	ASTM C177
01/T05	ASTM C335
01/T06	ASTM C518
01/T09	ASTM C653
01/T10	ASTM C687
01/T11	ASTM C976

Acoustical Testing Services

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
08/P03	ASTM C423
08/P04	ASTM C522
08/P06	ASTM E90
08/P10	ANSI S12.31 (ISO 3741)
08/P11	ISO 3744
08/P21	ISO 3745
08/P35	ASTM E1050

NVLAP LAB CODE 100113-0**Holometrix - Micromet**

25 Wiggins Avenue
Bedford, MA 01730-2323
Contact: Mr. Timothy Kunz
Phone: 781-275-3300 x245
Fax: 781-275-3705
E-Mail: tkunz@holometrix.com
URL: <http://www.holometrix.com>

Thermal Insulation Materials

Accreditation Valid Through: December 31, 2000

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<i>Code</i>	<i>Designation</i>
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Thermal Resistance

01/T01	ASTM C177
01/T05	ASTM C335
01/T06	ASTM C518

NVLAP LAB CODE 100120-0**Commercial Testing Company**

1215 South Hamilton Street
P.O. Box 985
Dalton, GA 30722-0985
Contact: Mr. Jonathan Jackson
Phone: 706-278-3935
Fax: 706-278-3936
E-Mail: ctctest@alltel.net

Carpet and Carpet Cushion

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Tests Applicable to Carpet Cushion

03/U01a	ASTM D3574 (Sec. 8.2 & Test A)
03/U01b	ASTM D3676 (Secs. 10-12)
03/U02	ASTM D297
03/U06	ASTM D1667 (Suffix B)
03/U07	ASTM D3574 (Test C)
03/U08	ASTM D3574 (Test D)
03/U09	ASTM D3574 (Test E)

03/U10	ASTM D3676 (Sec.13)
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03/U11	ASTM D3676 (Sec.14)
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03/U12	ASTM D3676 (Sec.15)
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03/U13	ASTM D3676 (Sec.16)
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Tests Applicable to Carpet and Carpet Cushion

03/T01	AATCC 16 (Option E)
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03/T02	ASTM D2646 (Secs. 16-24)
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03/T03	ASTM E84
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03/T04	16 CFR Part 1630 (FF-1-70)
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Tests Applicable to Carpets

03/G01	AATCC 20
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03/G02	AATCC 20A
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03/G03	AATCC 134
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03/G04	AATCC 165
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03/G05	ASTM D418 (Sec. 8)
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03/G06	ASTM D418 (Sec. 9)
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03/G07	ASTM D418 (Secs. 10-11)
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03/G08	ASTM D418 (Sec. 13)
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03/G09	ASTM D1335
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03/G10	ASTM D3936
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03/G12	ASTM E648
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03/G13	ASTM E662
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03/G14	Fed Spec, DDD-C-0095A
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NVLAP LAB CODE 100139-0**American Carpet Laboratories, Inc.**

7517 Nashville Street
P.O. Box 357
Ringgold, GA 30736
Contact: Mr. Michael D. Connell
Phone: 706-935-5672
Fax: 706-891-5713

Carpet and Carpet Cushion

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Tests Applicable to Carpet Cushion

03/U01b	ASTM D3676 (Secs. 10-12)
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03/U02	ASTM D297
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03/U08	ASTM D3574 (Test D)
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03/U10	ASTM D3676 (Sec.13)
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03/U12	ASTM D3676 (Sec.15)
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03/U13	ASTM D3676 (Sec.16)
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Tests Applicable to Carpet and Carpet Cushion

03/T01	AATCC 16 (Option E)
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03/T02	ASTM D2646 (Secs. 16-24)
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03/T04	16 CFR Part 1630 (FF-1-70)
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Tests Applicable to Carpets

03/G01	AATCC 20
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03/G02	AATCC 20A
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03/G04	AATCC 165
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03/G05	ASTM D418 (Sec. 8)
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03/G06	ASTM D418 (Sec. 9)
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03/G07	ASTM D418 (Secs. 10-11)
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03/G08	ASTM D418 (Sec. 13)
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03/G09	ASTM D1335
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03/G10	ASTM D3936
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03/G12	ASTM E648
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03/G13	ASTM E662
03/G14	Fed Spec, DDD-C-0095A
NVLAP LAB CODE 100142-0	

Geoscience Ltd.

6260-B Marindustry Drive
San Diego, CA 92121
Contact: Dr. H. F. Poppendiek
Phone: 858-453-5483
Fax: 858-453-4694

Thermal Insulation Materials

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Flammability

01/F05	ASTM E136
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Thermal Resistance

01/T01	ASTM C177
01/T04	ASTM C236

NVLAP LAB CODE 100146-0

American Testing Laboratories, Inc.

784 Flory Mill Road
P.O. Box 4014
Lancaster, PA 17604-4014
Contact: Mr. John S. Kassee
Phone: 717-569-0488
Fax: 717-569-3429

Construction Materials Testing

Accreditation Valid Through: March 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Aggregates

02/A03	ASTM C29
02/A04	ASTM C40
02/A06	ASTM C88
02/A07	ASTM C117
02/A09	ASTM C127
02/A10	ASTM C128
02/A11	ASTM C131
02/A12	ASTM C136
02/A44	ASTM C566
02/A46	ASTM C535

Cement

02/A17	ASTM C109
02/A51	ASTM C780 (Annex A7)
02/A52	ASTM C1019

Concrete

02/A01	ASTM C39
02/A02	ASTM C617
02/A41	ASTM C192
02/A43	ASTM C1064
02/A45	ASTM C42
02/G01	ASTM C31/C172/C143/C138/C231
02/G02	ASTM C173

Soil and Rock

02/L02	ASTM D422
02/L04	ASTM D698
02/L05	ASTM D854
02/L06	ASTM D1140
02/L08	ASTM D1557
02/L11	ASTM D2166
02/L13	ASTM D2216
02/L16	ASTM D2487
02/L17	ASTM D2488
02/L20	ASTM D4318
02/L23	ASTM D2922
02/L25	ASTM D3017

NVLAP LAB CODE 100156-0

Mohawk Industries, Inc.- Lyerly Plant

5081 Hwy. 114
Lyerly, GA 30730
Contact: Mr. Richard Turner
Phone: 706-895-3341 x6250
Fax: 706-895-2346
E-Mail: rturner@roman.net

Carpet and Carpet Cushion

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Tests Applicable to Carpet Cushion

03/U01b	ASTM D3676 (Secs. 10-12)
03/U06	ASTM D1667 (Suffix B)

Tests Applicable to Carpet and Carpet Cushion

03/T01	AATCC 16 (Option E)
03/T02	ASTM D2646 (Secs. 16-24)
03/T04	16 CFR Part 1630 (FF-1-70)

Tests Applicable to Carpets

03/G03	AATCC 134
03/G04	AATCC 165
03/G05	ASTM D418 (Sec. 8)
03/G06	ASTM D418 (Sec. 9)
03/G07	ASTM D418 (Secs. 10-11)
03/G08	ASTM D418 (Sec. 13)
03/G09	ASTM D1335
03/G10	ASTM D3936
03/G11	ASTM D5252
03/G12	ASTM E648
03/G13	ASTM E662
03/G14	Fed Spec, DDD-C-0095A

NVLAP LAB CODE 100166-0

Independent Textile Testing Service, Inc.

1503 Murray Avenue, P.O. Box 1948
Dalton, GA 30722-1948
Contact: Mr. L. Kent Suddeth
Phone: 706-278-3013
Fax: 706-272-7057
E-Mail: ittslab@dalton.net
URL: ittslab.com

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Carpet and Carpet Cushion**

Accreditation Valid Through: December 31, 2000

*NVLAP**Code Designation***Tests Applicable to Carpet Cushion**

03/U01a	ASTM D3574 (Sec. 8.2 & Test A)
03/U01b	ASTM D3676 (Secs. 10-12)
03/U02	ASTM D297
03/U03	ASTM D629 (Sec. 10)
03/U04	ASTM D629 (Secs. 13-22)
03/U05	ASTM D629 (Secs. 23-27)
03/U06	ASTM D1667 (Suffix B)
03/U07	ASTM D3574 (Test C)
03/U08	ASTM D3574 (Test D)
03/U09	ASTM D3574 (Test E)
03/U10	ASTM D3676 (Sec.13)
03/U11	ASTM D3676 (Sec.14)
03/U12	ASTM D3676 (Sec.15)
03/U13	ASTM D3676 (Sec.16)

Tests Applicable to Carpet and Carpet Cushion

03/T01	AATCC 16 (Option E)
03/T02	ASTM D2646 (Secs. 16-24)
03/T04	16 CFR Part 1630 (FF-1-70)

Tests Applicable to Carpets

03/G01	AATCC 20
03/G02	AATCC 20A
03/G03	AATCC 134
03/G04	AATCC 165
03/G05	ASTM D418 (Sec. 8)
03/G06	ASTM D418 (Sec. 9)
03/G07	ASTM D418 (Secs. 10-11)
03/G08	ASTM D418 (Sec. 13)
03/G09	ASTM D1335
03/G10	ASTM D3936
03/G11	ASTM D5252
03/G12	ASTM E648
03/G13	ASTM E662
03/G14	Fed Spec, DDD-C-0095A

NVLAP LAB CODE 100190-0**Beaulieu of America - Carpet Testing Lab**

1502 Coronet Drive

P.O. Box 1248

Dalton, GA 30722-1248

Contact: Mr. E. Ronald Vinyard

Phone: 706-259-4511 x7367

Fax: 706-259-2211 x7893

Carpet and Carpet Cushion

Accreditation Valid Through: December 31, 2000

*NVLAP**Code Designation***Tests Applicable to Carpet and Carpet Cushion**

03/T01	AATCC 16 (Option E)
03/T02	ASTM D2646 (Secs. 16-24)
03/T04	16 CFR Part 1630 (FF-1-70)

Tests Applicable to Carpets

03/G04	AATCC 165
03/G05	ASTM D418 (Sec. 8)

03/G06	ASTM D418 (Sec. 9)
03/G07	ASTM D418 (Secs. 10-11)
03/G08	ASTM D418 (Sec. 13)
03/G09	ASTM D1335
03/G10	ASTM D3936

NVLAP LAB CODE 100191-0**STS Consultants, Ltd.**

750 Corporate Woods Parkway

Vernon Hills, IL 60061

Contact: Mr. William P. Quinn

Phone: 847-279-2500

Fax: 847-279-2550

E-Mail: quinn@stsltd.com

Construction Materials Testing

Accreditation Valid Through: December 31, 2000

*NVLAP**Code Designation***Aggregates**

02/A03	ASTM C29
02/A04	ASTM C40
02/A06	ASTM C88
02/A07	ASTM C117
02/A09	ASTM C127
02/A10	ASTM C128
02/A11	ASTM C131
02/A12	ASTM C136
02/A13	ASTM C142
02/A15	ASTM D75
02/A46	ASTM C535

Cement

02/A17	ASTM C109
02/A20	ASTM C151
02/A26	ASTM C191
02/A51	ASTM C780 (Annex A7)
02/A52	ASTM C1019

Concrete

02/A01	ASTM C39
02/A02	ASTM C617
02/A40	ASTM C78
02/A41	ASTM C192
02/A43	ASTM C1064
02/A45	ASTM C42
02/A47	ASTM C457
02/G01	ASTM C31/C172/C143/C138/C231
02/G02	ASTM C173

Road and Paving Materials

02/M03	ASTM D140
02/M09	ASTM D1074
02/M11	ASTM D1188
02/M12	ASTM D1559
02/M19	ASTM D2172
02/M24	ASTM D2041
02/M25	ASTM D2726

Soil and Rock

02/L02	ASTM D422
02/L03	ASTM D427
02/L04	ASTM D698
02/L05	ASTM D854

02/L06	ASTM D1140
02/L08	ASTM D1557
02/L10	ASTM D1883
02/L11	ASTM D2166
02/L13	ASTM D2216
02/L15	ASTM D2435
02/L16	ASTM D2487
02/L17	ASTM D2488
02/L18	ASTM D3080
02/L20	ASTM D4318
02/L21	ASTM D2434
02/L22	ASTM D2850
02/L23	ASTM D2922
02/L24	ASTM D2974
02/L26	ASTM D4221
02/L29	Corps of Engineers - Manual EM-1110-2-1906, Appendix VII, Permeability of Fine Grained Soils Using a Triaxial Apparatus
02/L30	Corps of Engineers - Manual EM-1110-2-1906, Appendix X, Consolidated Undrained and Consolidated Drained Triaxial Test
02/L46	ASTM D5084
Standard Practices	
02/A38	ASTM E329
02/A39	ASTM C1077
02/L32	ASTM D3740
02/M26	ASTM D3666

NVLAP LAB CODE 100193-0
**Shaw Industries, Inc., Central Laboratory
Operations**

South Glenwood Avenue
P.O. Box 2128
Dalton, GA 30722-2128
Contact: Mr. Jerry T. Wright, Jr.
Phone: 706-275-2205
Fax: 706-275-2221
E-Mail: jay.wright@shawinc.com

Carpet and Carpet Cushion

Accreditation Valid Through: June 30, 2000

NVLAP
Code Designation

Tests Applicable to Carpet and Carpet Cushion

03/T01	AATCC 16 (Option E)
03/T02	ASTM D2646 (Secs. 16-24)
03/T04	16 CFR Part 1630 (FF-1-70)

Tests Applicable to Carpets

03/G04	AATCC 165
03/G06	ASTM D418 (Sec. 9)
03/G07	ASTM D418 (Secs. 10-11)
03/G08	ASTM D418 (Sec. 13)
03/G09	ASTM D1335
03/G10	ASTM D3936
03/G12	ASTM E648
03/G13	ASTM E662

NVLAP LAB CODE 100210-0
Flexible Products Company

2050 North Broadway
Joliet, IL 60435-3187
Contact: Mr. Robert Braun
Phone: 815-774-6500 x1560
Fax: 815-774-6522
E-Mail: rbraun@flexpro.com

Thermal Insulation Materials

Accreditation Valid Through: December 31, 2000

NVLAP
Code Designation

Mass, Density, and Dimensional Stability

01/D15	ASTM D756 (Proc. A)
01/D16	ASTM D756 (Proc. B)
01/D17	ASTM D756 (Proc. E)
01/D18	ASTM D1622
01/D19	ASTM D2126
01/D23	ASTM D2842

Related Material Properties

01/V04	ASTM E96
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Strength

01/S02	ASTM C203
01/S07	ASTM C273
01/S11	ASTM D1621 (Proc. A)

Thermal Resistance

01/T06	ASTM C518
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NVLAP LAB CODE 100227-0
Riverbank Acoustical Laboratories

1512 S. Batavia Avenue
P.O. Box 189
Geneva, IL 60134-3302
Contact: Mr. James E. Stangel
Phone: 630-232-0104
Fax: 630-232-0138
E-Mail: jstangel@iitri.org
URL: <http://riverbank.iitri.org>

Acoustical Testing Services

Accreditation Valid Through: March 31, 2000

NVLAP
Code Designation

08/P03	ASTM C423 (ISO 354)
08/P05	ASTMC523
08/P06	ASTM E90 (ISO 140, Part 3)
08/P07	ASTM E492
08/P10	ANSI S12.31 (ISO 3741)
08/P30	ASTM E1408

NVLAP LAB CODE 100228-0

Armstrong Acoustic Labs, Armstrong World Ind., Inc. Innov. Center

P.O. Box 3511
2500 Columbia Avenue
Lancaster, PA 17604
Contact: Mr. Robert Alan Hallman
Phone: 717-396-6225
Fax: 717-396-5865
E-Mail: Robert_A_Hallman@armstrong.com

Acoustical Testing Services

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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08/P03	ASTM C423
08/P07	ASTM E492
08/P28	ASTM E1375
08/P29	ASTM E1376
08/P33	ASTM E1111
08/P34	ASTM E1414 (AMA-1-II-67)(ISO 140, Part 9)
08/P44	ISO 354

NVLAP LAB CODE 100239-0

Hufcor Laboratory

1017 South Jackson Street
P.O. Box 591
Janesville, WI 53547-0591
Contact: Mr. Todd A. Williams
Phone: 608-758-8329
Fax: 608-758-8300
E-Mail: twilliams@hufcor.com

Acoustical Testing Services

Accreditation Valid Through: September 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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08/P06	ASTM E90 (ISO 140, Part 3)
08/P31	ASTM E336

NVLAP LAB CODE 100247-0

Hollytex Carpet Mills, Inc.

505 N.E. 7th
P.O. Box 369
Anadarko, OK 73005-2299
Contact: Ms. Carla McCathern
Phone: 405-247-7453
Fax: 405-247-9303

Carpet and Carpet Cushion

Accreditation Valid Through: June 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Tests Applicable to Carpet and Carpet Cushion

03/T01	AATCC 16 (Option E)
03/T04	16 CFR Part 1630 (FF-1-70)

Tests Applicable to Carpets

03/G04	AATCC 165
03/G09	ASTM D1335
03/G10	ASTM D3936

NVLAP LAB CODE 100248-0

Knauf Fiber Glass Research Laboratory

240 Elizabeth Street
Shelbyville, IN 46176-1496
Contact: Mr. Timothy R. Jonas
Phone: 317-398-4434
Fax: 317-398-3675
E-Mail: t.jonas@shelbynet.net

Thermal Insulation Materials

Accreditation Valid Through: March 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Corrosiveness

01/C03	ASTM C665 (Sec. 13.8)
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Mass, Density, and Dimensional Stability

01/D02	ASTM C167
01/D08	ASTM C302
01/D09	ASTM C303
01/D11	ASTM C356
01/D12	ASTM C411
01/D13	ASTM C519

Strength

01/S01a	ASTM C165 (Proc. A only)
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Thermal Resistance

01/T01	ASTM C177
01/T05	ASTM C335
01/T06	ASTM C518
01/T09	ASTM C653
01/T10	ASTM C687

NVLAP LAB CODE 100251-0

St. of California, Bur. of Home Furnishings & Thermal Insulation

3485 Orange Grove Avenue
North Highlands, CA 95660-5595
Contact: Dr. Stephen J. Fischer
Phone: 916-574-2060
Fax: 916-574-2449

Thermal Insulation Materials

Accreditation Valid Through: June 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Corrosiveness

01/C01	ASTM C739 (Sec. 9)
01/C02	16 CFR-Part 1209.5

Flammability

01/F07	16 CFR-Part 1209.6
01/F08	16 CFR-Part 1209.7
01/F09	ASTM C739 (Sec. 10)
01/F10	ASTM C739 (Sec. 14)

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Mass, Density, and Dimensional Stability**

01/D02 ASTM C167
01/D08 ASTM C302
01/D09 ASTM C303
01/D26 16 CFR-Part 1209.4
01/D27 ASTM C739 (Sec. 8)

Thermal Resistance

01/T01 ASTM C177
01/T05 ASTM C335

NVLAP LAB CODE 100252-0**D/L Laboratories, Inc.**

116 East 16th Street
New York, NY 10003-2174
Contact: Mr. Thomas J. Sliva
Phone: 212-777-4445
Fax: 212-505-8419
E-Mail: dllabs@aol.com
URL: <http://www.dllabs.com>

Commercial Products Testing

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Building Seals and Sealants

13/O01 ASTM C510
13/O02a ASTM C603
13/O02b CAN2-19.0-M77, Meth. 3.1
13/O03 ASTM C639
13/O04a ASTM C661
13/O04b CAN2-19.0-M77, Meth. 8.1
13/O05a ASTM C679
13/O05b CAN2-19.0-M77, Meth. 2.1
13/O06 ASTM C681
13/O07 ASTM C711
13/O08 ASTM C712
13/O09 ASTM C713
13/O10 ASTM C718
13/O11a ASTM C719
13/O11b CAN2-19.0-M77, Meth. 14.4
13/O12 ASTM C731
13/O13 ASTM C732
13/O14 ASTM C733
13/O15 ASTM C734
13/O16 ASTM C736
13/O17 ASTM C741
13/O18 ASTM C742
13/O19a ASTM C792
13/O19b CAN2-19.0-M77, Meth. 5.1
13/O20 ASTM C793
13/O21 ASTM C794
13/O22 ASTM C910
13/O23 ASTM D2202
13/O24 ASTM D2203
13/O25 ASTM D2376
13/O26 ASTM D2377
13/O27 ASTM D2450
13/O28 ASTM D2451
13/O29 ASTM D2452
13/O30 ASTM D2453
13/O31 CAN2-19.0-M77, Meth. 7.1
13/O32 CAN2-19.0-M77, Meth. 7.3

13/O33 CAN2-19.0-M77, Meth. 8.2
13/O34 CAN2-19.0-M77, Meth. 11.1
13/O35 CAN2-19.0-M77, Meth. 14.7
13/O36 CAN2-19.0-M77, Meth. 19.2
13/O37 ASTM C920
13/O38 ASTM C1241
13/O39 ASTM C1183
13/O40 ASTM C1246
13/O41 CAN2-19.0-M77, Meth. 9.1
13/O42 CAN2-19.0-M77, Meth. 9.2
13/O43 CAN2-19.0-M77, Meth. 14.6
13/O44 CAN2-19.0-M77, Meth. 18.2
13/O45 ASTM C834

Paints and Related Coatings and Materials

09/A01 ASTM D56
09/A02 ASTM D93 (Method A)
09/A03 ASTM D153
09/A04 ASTM D185
09/A05 ASTM D281
09/A07 ASTM D523
09/A08 ASTM D562
09/A09 ASTM D1005
09/A10 ASTM D1186
09/A11 ASTM D1200
09/A12 ASTM D1210
09/A13 ASTM D1212 (Method A)
09/A14 ASTM D1296
09/A15 ASTM D1310
09/A16 ASTM D1400
09/A17 ASTM D1475
09/A18 ASTM D1544
09/A19 ASTM D1729
09/A20 ASTM D2244
09/A21 ASTM D3278
09/A22 ASTM D3363
09/A23 ASTM D3793
09/A25 ASTM D4212
09/A26 ASTM E1347
09/A28 ASTM E313
09/A30 CGSB Method 1-GP-71, Meth. 10.1
09/A31 CGSB Method 1-GP-71, Meth. 12.8
09/A32 CGSB Method 1-GP-71, Meth. 45.1
09/A33 ASTM D2196
09/B02 ASTM D332
09/B03 ASTM D344
09/B04 ASTM D610
09/B05 ASTM D4214
09/B06 ASTM D660
09/B07 ASTM D661
09/B08 ASTM D662
09/B09 ASTM D711
09/B10 ASTM D714
09/B11 ASTM D772
09/B12 ASTM D868
09/B13a ASTM D968
09/B13b CGSB Method 1-GP-71 Meth. 104.1
09/B14 ASTM D869
09/B15 ASTM D870
09/B16 ASTM D913
09/B18 ASTM D969
09/B19a ASTM D1308
09/B19b CGSB Method 1-GP-71, Meth. 105.1

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

09/B19c CGSB Method 1-GP-71, Meth. 106.1
09/B19d CGSB Method 1-GP-71, Meth. 107.1
09/B19e CGSB Method 1-GP-71, Meth. 110.1
09/B20 ASTM D1309
09/B23 ASTM D1640
09/B24 ASTM D522
09/B25 ASTM D2197
09/B26 ASTM D2243
09/B27 ASTM D2248
09/B29 ASTM D2486
09/B31 ASTM D2805
09/B32 ASTM D3273
09/B33 ASTM D3274
09/B34 ASTM D3450
09/B37 ASTM D4060
09/B38 ASTM D4062
09/B39 ASTM D4213
09/B41 Fed. Std. 141, Method 4494
09/B42 Fed. Std. 141, Method 4061
09/B43 ASTM D3359
09/B44 ASTM D4828
09/B45 CGSB Method 1-GP-71, Meth. 14.1
09/B46a ASTM D1849
09/B46b CGSB Method 1-GP-71, Meth. 30.3
09/B47 CGSB Method 1-GP-71, Meth. 32.1
09/B48 CGSB Method 1-GP-71, Meth. 37.3
09/B49 CGSB Method 1-GP-71, Meth. 112.2
09/B50 CGSB Method 1-GP-71, Meth. 114.1
09/B51 CGSB Method 1-GP-71, Meth. 116.2
09/B52 CGSB Method 1-GP-71, Meth. 123.2
09/B53 CGSB Method 1-GP-71, Meth. 125.1
09/B54 CGSB Method 1-GP-71, Meth. 127.1
09/B55 CGSB Method 1-GP-71, Meth. 130.1
09/B56 CGSB Method 1-GP-71, Meth. 131.2
09/B57 CGSB Method 1-GP-71, Meth. 132.1
09/B58 CGSB Method 1-GP-71, Meth. 134.1
09/B59 CGSB Method 1-GP-71, Meth. 135.1
09/B59 CGSB Method 1-GP-71, Meth. 135.1
09/B60 CGSB Method 1-GP-71, Meth. 142.1
09/B61 ASTM D412
09/B62 ASTM D1653
09/B63 ASTM D2134
09/B64 ASTM D2370
09/B65 ASTM D3258
09/B66 ASTM D3806
09/B67 ASTM D4400
09/B68 ASTM D4541
09/B69 ASTM D4707
09/B70 ASTM D4946
09/B71 ASTM D2794
09/C07 ASTM D1133
09/C09 ASTM D1259
09/C11 ASTM D1353
09/C12 ASTM D1364
09/C22 ASTM D1644
09/C26a ASTM D2369
09/C26b CGSB Method 1-GP-71, Meth. 17.1
09/C26c CGSB Method 1-GP-71, Meth. 19.1
09/C27 ASTM D2371
09/C28 ASTM D2697
09/C29 ASTM D2698
09/C30 ASTM D2832

09/C37 ASTM D3723
09/C39 ASTM D3960
09/C40 ASTM D4017
09/C42 CGSB Method 1-GP-71, Meth. 21.1
09/C43 CGSB Method 1-GP-71, Meth. 24.1
09/C44 ASTM D5095
09/C45 CGSB Method 1-GP-71, Meth. 69.3
09/D01 ASTM B117
09/D02 ASTM D609
09/D03 ASTM D822
09/D04 ASTM D823 (Limited to Practices B, C, D and E)
09/D05 ASTM D1006
09/D06 ASTM D1014
09/D07 ASTM D1654
09/D13 ASTM D3924
09/D14 ASTM G23
09/D16 ASTM G53
09/D17 ASTM D4446
09/D18 ASTM D5401
Plastics
15/A26 ASTM D2240

NVLAP LAB CODE 100255-0**Underwriters Laboratories, Inc.**

1285 Walt Whitman Road
Melville, NY 11747-3081
Contact: Mr. Rick A. Titus
Phone: 847-272-8800
Fax: 847-509-6321
E-Mail: Rick.A.Titus@us.ul.com
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FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

ACA Technical Standards as determined under the Telecommunications Act of 1997

12/T41 ACA TS-001
12/T42 ACA TS-002
12/T44 ACA TS-004
12/T45 ACA TS-006
12/T46 ACA TS-008

Australian Standards referred to by clauses in ACA***Technical Standards***

12/T50 AS/NZS 3260
12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions
12/T01 Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
12/T01a 68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power

	limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection
12/T01b	68.316 Hearing Aid Compatibility: technical standards
12/T01c	68.302 Environmental simulation (Par. a,b)
International Special Committee on Radio Interference (CISPR) Methods	
12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 100256-0

Western Electro-Acoustic Lab., Inc.

1711 16th Street
Santa Monica, CA 90404
Contact: Mr. Gary E. Mange
Phone: 310-450-1733
Fax: 310-396-3424
E-Mail: gmange@weal.com

Acoustical Testing Services

Accreditation Valid Through: March 31, 2000

NVLAP

Code	Designation
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08/P03	ASTM C423 (ISO 354)
08/P06	ASTM E90 (ISO 140, Part 3)
08/P30	ASTM E1408
08/P31	ASTM E336
08/P32	ASTM E1007

NVLAP LAB CODE 100261-0

**Resources, Applications, Designs & Control, Inc.
(RADCO)**

3220 E. 59th Street
Long Beach, CA 90805-4502
Contact: Mr. Michael L. Zieman, P.E.
Phone: 562-272-7231
Fax: 562-529-7513
E-Mail: Mzieman@Radcoinc.com
URL: http://radco.inc.com

Thermal Insulation Materials

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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Mass, Density, and Dimensional Stability

01/D07	ASTM C272
01/D09	ASTM C303

01/D19	ASTM D2126
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Related Material Properties

01/V04	ASTM E96
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Strength

01/S02	ASTM C203
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01/S10	ASTM D828
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01/S11	ASTM D1621 (Proc. A of ASTM Practice D618)
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Thermal Resistance

01/T06	ASTM C518
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NVLAP LAB CODE 100267-0

Retlif Testing Laboratories

795 Marconi Avenue
Ronkonkoma, NY 11779-7231
Contact: Mr. Ross A. Hansen
Phone: 516-737-1500
Fax: 516-737-1497
E-Mail: rhansen@retlif.com
URL: http://www.retlif.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA

Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
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12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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12/T01	Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
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12/T01a	68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection
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12/T01b	68.316 Hearing Aid Compatibility: technical standards
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12/T01c	68.302 Environmental simulation (Par. a,b)
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**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
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INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

MIL-STD-462 Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Conducted Emissions:

12/A01	MIL-STD-462 Method CE01
12/A04	MIL-STD-462 Method CE02
12/A06	MIL-STD-462 Method CE03
12/A08	MIL-STD-462 Method CE04
12/A12	MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01	MIL-STD-462 Method CS01
12/B02	MIL-STD-462 Method CS02
12/B05	MIL-STD-462 Method CS06
12/B08	MIL-STD-462 Method CS10
12/B09	MIL-STD-462 Method CS11

Radiated Emissions:

12/D01	MIL-STD-462 Method RE01
12/D02	MIL-STD-462 Method RE02

Radiated Susceptibility:

12/E01	MIL-STD-462 Method RS01
12/E02	MIL-STD-462 Method RS02
12/E04	MIL-STD-462 Method RS03 employing RADHAZ procedures for high level testing (Consult laboratory for field strengths available)
12/E05	MIL-STD-462 Method RS05
12/E07	MIL-STD-462 Method RS06

NVLAP LAB CODE 100267-1**Retlif Testing Laboratories**

101 New Boston Road
Goffstown, NH 03045
Contact: John Monahan
Phone: 603-497-4600
Fax: 603-497-5281

URL: <http://www.retlif.com>**FCC Test Methods**

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference**(CISPR) Methods**

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of

measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

NVLAP LAB CODE 100268-0**TUV Product Service, Inc.**

10040 Mesa Rim Road
San Diego, CA 92121-1034
Contact: Mr. Floyd R. Fleury
Phone: 619-546-3999
Fax: 619-546-0364
E-Mail: cfleury@TUVps.com
URL: <http://www.tuvps.com>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference**(CISPR) Methods**

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

MIL-STD-462 Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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Conducted Emissions:

12/A01	MIL-STD-462 Method CE01
12/A04	MIL-STD-462 Method CE02
12/A06	MIL-STD-462 Method CE03
12/A08	MIL-STD-462 Method CE04
12/A10	MIL-STD-462 Method CE06
12/A12	MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01	MIL-STD-462 Method CS01
12/B02	MIL-STD-462 Method CS02
12/B04	MIL-STD-462 Method

CS03/CS04/CS05/CS08
12/B05 MIL-STD-462 Method CS06
12/B06 MIL-STD-462 Method CS07
12/B07 MIL-STD-462 Method CS09

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02
12/D03 MIL-STD-462 Method RE03

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)
12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)

NVLAP LAB CODE 100269-0

Intermec Technologies Corporation, Norand Mobile System Division

550 Second Street S.E.
Cedar Rapids, IA 52401
Contact: Mr. Cedric Brownfield
Phone: 319-846-2415
Fax: 319-846-2475
E-Mail: brownfieldcn@norand.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 100270-0

Intertek Testing Services NA Inc.

70 Codman Hill Road
Boxborough, MA 01719
Contact: Mr. Robert F. Martin
Phone: 978-635-8606
Fax: 978-263-7086
E-Mail: rfm@itsqs.com
URL: http://www.etlsemko.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

ACA Technical Standards as determined under the Telecommunications Act of 1997

12/T41 ACA TS-001
12/T42 ACA TS-002
12/T43 ACA TS-003
12/T44 ACA TS-004
12/T45 ACA TS-006
12/T46 ACA TS-008
12/T49 ACA TS-016

Australian Standards referred to by clauses in ACA

Technical Standards

12/T50 AS/NZS 3260
12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions
12/T01 Terminal Equipment Network Protection
Standards, FCC Method - 47 CFR Part 68 -
Analog and Digital
12/T01a 68.302 (Par. c,d,e,f) Environmental simulation;
68.304 Leakage current limit.; 68.306
Hazardous voltage limit.; 68.308 Signal power
limit.; 68.310 Longitudinal balance limit.;
68.312 On-hook impedance limit.; 68.314
Billing protection
12/T01b 68.316 Hearing Aid Compatibility: technical
standards
12/T01c 68.302 Environmental simulation (Par. a,b)

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference

Characteristics of Information Technology
Equipment

MIL-STD-462 Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Conducted Emissions:

12/A01 MIL-STD-462 Method CE01
12/A04 MIL-STD-462 Method CE02
12/A06 MIL-STD-462 Method CE03
12/A08 MIL-STD-462 Method CE04
12/A10 MIL-STD-462 Method CE06
12/A12 MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01
12/B02 MIL-STD-462 Method CS02
12/B04 MIL-STD-462 Method
CS03/CS04/CS05/CS08
12/B05 MIL-STD-462 Method CS06
12/B06 MIL-STD-462 Method CS07
12/B07 MIL-STD-462 Method CS09
12/B08 MIL-STD-462 Method CS10
12/B09 MIL-STD-462 Method CS11
12/B10 MIL-STD-462 Method CS12
12/B11 MIL-STD-462 Method CS13

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02
12/D03 MIL-STD-462 Method RE03

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)
12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)
12/E05 MIL-STD-462 Method RS05
12/E07 MIL-STD-462 Method RS06

NVLAP LAB CODE 100271-0

TUV Product Service, Inc.

1775 Old Hwy. 8 NW, Suite 104
New Brighton, MN 55112-1891
Contact: Mr. Timothy P. O'Shea
Phone: 651-631-2487
Fax: 651-638-0285
E-Mail: toshea@tuvps.com
URL: <http://www.tuvglobal.com>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

**ACA Technical Standards as determined under the
Telecommunications Act of 1997**

12/T41 ACA TS-001
12/T46 ACA TS-008

**Australian Standards referred to by clauses in ACA
Technical Standards**

12/T50 AS/NZS 3260
12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions

**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

MIL-STD-462 Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Conducted Emissions:

12/A01 MIL-STD-462 Method CE01
12/A04 MIL-STD-462 Method CE02
12/A06 MIL-STD-462 Method CE03
12/A08 MIL-STD-462 Method CE04
12/A12 MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01
12/B02 MIL-STD-462 Method CS02
12/B05 MIL-STD-462 Method CS06
12/B07 MIL-STD-462 Method CS09

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)
12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)
12/E07 MIL-STD-462 Method RS06

NVLAP LAB CODE 100271-1
TUV Product Service, Inc.

5541 Central Avenue
Boulder, CO 80301-2846
Contact: Jeff Doolittle
Phone: 303-402-5241
Fax: 303-449-3004
E-Mail: jdoolittle@tuvps.com
URL: <http://www.tuvglobal.com>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Australian Standards referred to by clauses in ACA
Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 100272-0
Communication Certification Laboratory

1940 West Alexander Street
Salt Lake City, UT 84119-2039
Contact: Mr. William S. Hurst
Phone: 801-972-6146
Fax: 801-972-8432
E-Mail: wsh@cclab.com
URL: <http://www.cclab.com/>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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ACA Technical Standards as determined under the Telecommunications Act of 1997

12/T41	ACA TS-001
12/T42	ACA TS-002
12/T43	ACA TS-003
12/T44	ACA TS-004

12/T45	ACA TS-006
12/T46	ACA TS-008
12/T49	ACA TS-016

Australian Standards referred to by clauses in ACA Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions
12/T01	Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
12/T01a	68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection
12/T01b	68.316 Hearing Aid Compatibility: technical standards
12/T01c	68.302 Environmental simulation (Par. a,b)

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 100273-0
MET Laboratories, Inc.

914 W. Patapsco Avenue
Baltimore, MD 21230-3432
Contact: Mr. Robert Frier
Phone: 410-354-3300
Fax: 410-354-3313
E-Mail: rfrier@metlabs.com
URL: <http://www.metlabs.com>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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ACA Technical Standards as determined under the Telecommunications Act of 1997

12/T41	ACA TS-001
12/T42	ACA TS-002
12/T43	ACA TS-003
12/T44	ACA TS-004
12/T45	ACA TS-006
12/T46	ACA TS-008
12/T49	ACA TS-016

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Australian Standards referred to by clauses in ACA****Technical Standards**

12/T50 AS/NZS 3260

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

12/T01 Terminal Equipment Network Protection
Standards, FCC Method - 47 CFR Part 68 -
Analog and Digital12/T01a 68.302 (Par. c,d,e,f) Environmental simulation;
68.304 Leakage current limit.; 68.306
Hazardous voltage limit.; 68.308 Signal power
limit.; 68.310 Longitudinal balance limit.;
68.312 On-hook impedance limit.; 68.314
Billing protection12/T01b 68.316 Hearing Aid Compatibility: technical
standards

12/T01c 68.302 Environmental simulation (Par. a,b)

International Special Committee on Radio Interference**(CISPR) Methods**12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment**NVLAP LAB CODE 100274-0****Intertek Testing Services NA Inc.**731 Enterprise Drive
Lexington, KY 40510-1029
Contact: Mr. Tim Scott
Phone: 606-226-1083
Fax: 606-225-1050
E-Mail: tims@itsqs.com
URL: <http://www.testmark.com>**FCC Test Methods**

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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**ACA Technical Standards as determined under the
Telecommunications Act of 1997**

12/T41 ACA TS-001

12/T42 ACA TS-002

12/T43 ACA TS-003

12/T44 ACA TS-004

12/T45 ACA TS-006

12/T46 ACA TS-008

12/T49 ACA TS-016

Australian Standards referred to by clauses in ACA**Technical Standards**

12/T50 AS/NZS 3260

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

12/T01 Terminal Equipment Network Protection
Standards, FCC Method - 47 CFR Part 68 -
Analog and Digital12/T01a 68.302 (Par. c,d,e,f) Environmental simulation;
68.304 Leakage current limit.; 68.306
Hazardous voltage limit.; 68.308 Signal power
limit.; 68.310 Longitudinal balance limit.;
68.312 On-hook impedance limit.; 68.314
Billing protection12/T01b 68.316 Hearing Aid Compatibility: technical
standards

12/T01c 68.302 Environmental simulation (Par. a,b)

International Special Committee on Radio Interference**(CISPR) Methods**12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment**NVLAP LAB CODE 100275-0****Lucent Technologies, Global Product Compliance
Lab**101 Crawfords Corner Road, M/S 11C-195
P.O. Box 3030
Holmdel, NJ 07733-3030
Contact: Mr. E. Gardner Burkhardt
Phone: 732-332-6001
Fax: 732-332-5999
E-Mail: egburkhardt@lucent.com
URL: <http://www.gpcl.com>**FCC Test Methods**

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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**ACA Technical Standards as determined under the
Telecommunications Act of 1997**

12/T41 ACA TS-001

12/T42 ACA TS-002

12/T44 ACA TS-004

12/T45 ACA TS-006

12/T46 ACA TS-008

Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 100276-0
D.L.S. Electronic Systems, Inc.

1250 Peterson Drive
Wheeling, IL 60090-6454
Contact: Mr. Brian J. Mattson
Phone: 847-537-6400
Fax: 847-537-6488
E-Mail: bmattson@dlsemc.com
URL: <http://www.dlsemc.com>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA
Technical Standards

- 12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 100278-0
Elite Electronic Engineering Inc.

1516 Centre Circle
Downers Grove, IL 60515-1082
Contact: Mr. Raymond Klouda
Phone: 630-495-9770
Fax: 630-495-9785
E-Mail: engineering@elitetest.com
URL: <http://www.elitetest.com>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions
- 12/T01 Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
- 12/T01a 68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection
- 12/T01b 68.316 Hearing Aid Compatibility: technical standards
- 12/T01c 68.302 Environmental simulation (Par. a,b)

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

MIL-STD-462 Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Conducted Emissions:

- 12/A01 MIL-STD-462 Method CE01
- 12/A04 MIL-STD-462 Method CE02
- 12/A06 MIL-STD-462 Method CE03
- 12/A08 MIL-STD-462 Method CE04
- 12/A10 MIL-STD-462 Method CE06
- 12/A12 MIL-STD-462 Method CE07

Conducted Susceptibility:

- 12/B01 MIL-STD-462 Method CS01
- 12/B02 MIL-STD-462 Method CS02
- 12/B04 MIL-STD-462 Method CS03/CS04/CS05/CS08
- 12/B05 MIL-STD-462 Method CS06
- 12/B06 MIL-STD-462 Method CS07
- 12/B07 MIL-STD-462 Method CS09

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

12/B08 MIL-STD-462 Method CS10
12/B09 MIL-STD-462 Method CS11
12/B10 MIL-STD-462 Method CS12
12/B11 MIL-STD-462 Method CS13

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02
12/D03 MIL-STD-462 Method RE03

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)
12/E05 MIL-STD-462 Method RS05
12/E07 MIL-STD-462 Method RS06

NVLAP LAB CODE 100280-0**IIT Research Institute/R&B Operation**

20 Clipper Road
West Conshohocken, PA 19428-2721
Contact: Mr. Rohit Vohra
Phone: 610-825-1960 x229
Fax: 610-825-1684
E-Mail: rvohra@iitri.org
URL: www.IITRI.org

MIL-STD-462 Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Conducted Emissions:

12/A01 MIL-STD-462 Method CE01
12/A06 MIL-STD-462 Method CE03
12/A10 MIL-STD-462 Method CE06
12/A12 MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01
12/B02 MIL-STD-462 Method CS02
12/B05 MIL-STD-462 Method CS06
12/B06 MIL-STD-462 Method CS07
12/B07 MIL-STD-462 Method CS09
12/B08 MIL-STD-462 Method CS10
12/B09 MIL-STD-462 Method CS11
12/B10 MIL-STD-462 Method CS12
12/B11 MIL-STD-462 Method CS13

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)
12/E05 MIL-STD-462 Method RS05

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions

NVLAP LAB CODE 100286-0**Acoustic Systems Acoustical Research Facility**

415 East St. Elmo Road
P.O. Box 3610
Austin, TX 78764
Contact: Mr. Michael C. Black
Phone: 512-444-1961
Fax: 512-444-2282
E-Mail: acoustic@inetport.com

Acoustical Testing Services

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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08/P03 ASTM C423 (ISO 354)
08/P06 ASTM E90 (ISO 140, Part 3)
08/P08 ASTM E596
08/P10 ANSI S12.31 (ISO 3741)
08/P24 ANSI S12.10 (ISO 7779)
08/P35 ASTM E1050

NVLAP LAB CODE 100288-0**Bentley Testing Laboratory**

14641 E. Don Julian Road
P.O. Box 527
City of Industry, CA 91746-3106
Contact: Ms. Sandy Kolby
Phone: 626-333-4585 x2253
Fax: 626-333-4125
E-Mail: Sandy.Kolby@us.interfaceinc.com

Carpet and Carpet Cushion

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Tests Applicable to Carpet Cushion

03/U01a ASTM D3574 (Sec. 8.2 & Test A)
03/U02 ASTM D297
03/U07 ASTM D3574 (Test C)
03/U08 ASTM D3574 (Test D)
03/U10 ASTM D3676 (Sec.13)

Tests Applicable to Carpet and Carpet Cushion

03/T01 AATCC 16 (Option E)
03/T04 16 CFR Part 1630 (FF-1-70)

Tests Applicable to Carpets

03/G04 AATCC 165
03/G05 ASTM D418 (Sec. 8)
03/G06 ASTM D418 (Sec. 9)

03/G07 ASTM D418 (Secs. 10-11)
 03/G08 ASTM D418 (Sec. 13)
 03/G09 ASTM D1335
 03/G10 ASTM D3936
 03/G12 ASTM E648
 03/G13 ASTM E662

NVLAP LAB CODE 100290-0
Akzo Kashima Ltd., Kashima EMC Site

1 Oaza Sunayama, Hasaki, Kashima-gun
 Ibaraki 314-02
 JAPAN
 Contact: Mr. Shuichi Kobayashi
 Phone: +81-479-40-1097
 Fax: +81-479-46-1788
 E-Mail: shuichi.kobayashi@nifty.ne.jp
 URL: <http://www.akzoemc.co.jp>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA
Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
 Devices
 12/F01a Conducted Emissions, Power Lines, 450 KHz
 to 30 MHz
 12/F01b Radiated Emissions

**International Special Committee on Radio Interference
 (CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
 measurement of radio disturbance
 characteristics of information technology
 equipment

NVLAP LAB CODE 100290-2
Akzo Kashima Ltd. Kakegawa EMC Test Site

322 Shimotaruki, Kakegawa
 Shizuoka 436-0222
 JAPAN
 Contact: Seiji Matsuda
 Phone: +81-837-24-8191
 Fax: +81-537-24-8193
 E-Mail: akzoemc2@sb3.so-net.or.jp
 URL: <http://www.akzoemc.co.jp>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA
Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
 Devices
 12/F01a Conducted Emissions, Power Lines, 450 KHz

to 30 MHz
 12/F01b Radiated Emissions
**International Special Committee on Radio Interference
 (CISPR) Methods**
 12/CIS22 IEC/CISPR 22:1993: Limits and methods of
 measurement of radio disturbance
 characteristics of information technology
 equipment

NVLAP LAB CODE 100290-3
Akzo Kashima Ltd., Nagano EMC Test Site

3226 Yokokawa, Tatsuno, Kamina-gun
 Nagano 399-0511
 JAPAN
 Contact: Yoshio Kowase
 Phone: +81-266-47-5311
 Fax: +81-266-47-5540
 E-Mail: akzoemc3@sb3.so-net.or.jp
 URL: <http://www.akzoemc.co.jp>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA
Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
 Devices
 12/F01a Conducted Emissions, Power Lines, 450 KHz
 to 30 MHz
 12/F01b Radiated Emissions

**International Special Committee on Radio Interference
 (CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
 measurement of radio disturbance
 characteristics of information technology
 equipment

NVLAP LAB CODE 100290-4
Akzo Kashima Ltd., Matsuda EMC Test Site

1283 Yadorigi, Matsuda, Ashigarakami-gun
 Kanagawa 258-0001
 JAPAN
 Contact: Hideki Hayashi
 Phone: +81-465-89-2316
 Fax: +81-465-89-2160
 E-Mail: akzoemc5@sb3.so-net.or.jp
 URL: <http://www.akzoemc.co.jp>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA
Technical Standards

12/T51 AS/NZS 3548

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Federal Communications Commission (FCC) Methods**

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 100290-5**Akzo Kashima Ltd., Tochigi EMC Test Site**

870 Nakaawano, Awano, Kamitsuga-gun
Tochigi 322-0306
JAPAN
Contact: Kazuharu Yanagisawa
Phone: +81-289-86-7121
Fax: +81-289-86-7126
E-Mail: akzoemc6@sb3.so-net.or.jp
URL: <http://www.akzoemc.co.jp>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 100296-0**Chomerics Test Services (CTS)**

77 Dragon Court
Woburn, MA 01888-4014
Contact: Mr. David C. Inman
Phone: 781-939-4375
Fax: 781-935-2758
E-Mail: dinman@parker.com
URL: <http://www.chomericstest.com>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 100297-0**Professional Testing Laboratory, Inc.**

714 Glenwood Place
Dalton, GA 30721
Contact: Mr. Greg Phillips
Phone: 706-226-3283
Fax: 706-226-6787

Carpet and Carpet Cushion

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Tests Applicable to Carpet Cushion

03/U01a	ASTM D3574 (Sec. 8.2 & Test A)
03/U01b	ASTM D3676 (Secs. 10-12)
03/U02	ASTM D297
03/U03	ASTM D629 (Sec. 10)
03/U04	ASTM D629 (Secs. 13-22)
03/U05	ASTM D629 (Secs. 23-27)
03/U06	ASTM D1667 (Suffix B)
03/U07	ASTM D3574 (Test C)
03/U08	ASTM D3574 (Test D)
03/U09	ASTM D3574 (Test E)
03/U10	ASTM D3676 (Sec. 13)
03/U11	ASTM D3676 (Sec. 14)
03/U12	ASTM D3676 (Sec. 15)
03/U13	ASTM D3676 (Sec. 16)

Tests Applicable to Carpet and Carpet Cushion

03/T01	AATCC 16 (Option E)
03/T02	ASTM D2646 (Secs. 16-24)
03/T04	16 CFR Part 1630 (FF-1-70)

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Tests Applicable to Carpets**

03/G01	AATCC 20
03/G02	AATCC 20A
03/G03	AATCC 134
03/G04	AATCC 165
03/G05	ASTM D418 (Sec. 8)
03/G06	ASTM D418 (Sec. 9)
03/G07	ASTM D418 (Secs. 10-11)
03/G08	ASTM D418 (Sec. 13)
03/G09	ASTM D1335
03/G10	ASTM D3936
03/G11	ASTM D5252
03/G12	ASTM E648
03/G13	ASTM E662

NVLAP LAB CODE 100308-0**Special Testing Laboratories, Inc.**

21 Henry Street
P.O. Box 200
Bethel, CT 06801-0200
Contact: Mr. Richard Speciale
Phone: 203-743-7281
Fax: 203-791-2451

Construction Materials Testing

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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Aggregates

02/A03	ASTM C29
02/A04	ASTM C40
02/A06	ASTM C88
02/A07	ASTM C117
02/A09	ASTM C127
02/A10	ASTM C128
02/A11	ASTM C131
02/A12	ASTM C136
02/A15	ASTM D75
02/A15	ASTM D75
02/A44	ASTM C566

Concrete

02/A01	ASTM C39
02/A02	ASTM C617
02/A41	ASTM C192
02/A43	ASTM C1064
02/A45	ASTM C42
02/G01	ASTM C31/C172/C143/C138/C231
02/G02	ASTM C173

Road and Paving Materials

02/M25	ASTM D2726
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Soil and Rock

02/L02	ASTM D422
02/L04	ASTM D698
02/L06	ASTM D1140
02/L07	ASTM D1556
02/L08	ASTM D1557
02/L09	ASTM D1558
02/L12	ASTM D2168
02/L13	ASTM D2216

02/L16	ASTM D2487
02/L17	ASTM D2488
02/L20	ASTM D4318
02/L23	ASTM D2922
02/L25	ASTM D3017
02/L31	ASTM D2167

Standard Practices

02/A38	ASTM E329
02/A39	ASTM C1077

Steel Materials

02/S02	ASTM A370 (Sec. 14)/E190
02/S07	ASTM E709
02/S08	ASTM E165

NVLAP LAB CODE 100315-0**Eastern Materials Testing Lab a division of
Jaworski Geotech**

112-114 Woodlawn Road
Berlin, CT 06037
Contact: Mr. Kevin J. Brigandi
Phone: 800-232-3634
Fax: 888-215-9721
E-Mail: emtl@connix.com
URL: <http://www.jgi-geo.com>

Construction Materials Testing

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Aggregates

02/A03	ASTM C29
02/A04	ASTM C40
02/A06	ASTM C88
02/A07	ASTM C117
02/A09	ASTM C127
02/A10	ASTM C128
02/A12	ASTM C136

Cement

02/A17	ASTM C109
02/A30	ASTM C266
02/A51	ASTM C780 (Annex A7)
02/A52	ASTM C1019

Concrete

02/A01	ASTM C39
02/A02	ASTM C617
02/A41	ASTM C192
02/A43	ASTM C1064
02/A45	ASTM C42
02/G01	ASTM C31/C172/C143/C138/C231
02/G02	ASTM C173

Road and Paving Materials

02/M19	ASTM D2172
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Soil and Rock

02/L02	ASTM D422
02/L04	ASTM D698
02/L06	ASTM D1140
02/L08	ASTM D1557
02/L12	ASTM D2168
02/L13	ASTM D2216
02/L16	ASTM D2487
02/L20	ASTM D4318

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

02/L23 ASTM D2922
02/L25 ASTM D3017
02/L31 ASTM D2167

Standard Practices

02/A38 ASTM E329
02/A39 ASTM C1077

NVLAP LAB CODE 100316-0**Independent Materials Testing Laboratories, Inc.**

57 N. Washington Street
P.O. Box 745
Plainville, CT 06062-0745
Contact: Mr. David P. Aiudi
Phone: 203-525-7193
Fax: 203-747-6455

Construction Materials Testing

Accreditation Valid Through: March 31, 2000

NVLAP

Code	Designation
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Aggregates

02/A03	ASTM C29
02/A04	ASTM C40
02/A05	ASTM C87
02/A06	ASTM C88
02/A07	ASTM C117
02/A08	ASTM C123
02/A09	ASTM C127
02/A10	ASTM C128
02/A11	ASTM C131
02/A12	ASTM C136
02/A13	ASTM C142
02/A15	ASTM D75
02/A44	ASTM C566
02/A46	ASTM C535

Cement

02/A26	ASTM C191
02/A31	ASTM C305
02/A51	ASTM C780 (Annex A7)
02/A52	ASTM C1019

Concrete

02/A01	ASTM C39
02/A02	ASTM C617
02/A40	ASTM C78
02/A41	ASTM C192
02/A43	ASTM C1064
02/A45	ASTM C42
02/G01	ASTM C31/C172/C143/C138/C231
02/G02	ASTM C173

Road and Paving Materials

02/M08	ASTM D979
02/M11	ASTM D1188
02/M19	ASTM D2172
02/M24	ASTM D2041
02/M25	ASTM D2726

Soil and Rock

02/L01	ASTM D4220
02/L02	ASTM D422
02/L04	ASTM D698

02/L05	ASTM D854
02/L06	ASTM D1140
02/L07	ASTM D1556
02/L08	ASTM D1557
02/L10	ASTM D1883
02/L12	ASTM D2168
02/L13	ASTM D2216
02/L14	ASTM D2217
02/L16	ASTM D2487
02/L17	ASTM D2488
02/L20	ASTM D4318
02/L21	ASTM D2434
02/L23	ASTM D2922
02/L24	ASTM D2974
02/L25	ASTM D3017
02/L29	Corps of Engineers - Manual

EM-1110-2-1906, Appendix VII, Permeability
of Fine Grained Soils Using a Triaxial

Apparatus

02/L31	ASTM D2167
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Standard Practices

02/A38	ASTM E329
02/A39	ASTM C1077

Steel Materials

02/S07	ASTM E709
02/S08	ASTM E165

NVLAP LAB CODE 100317-0**Fairfield Testing Laboratory, Inc.**

652 Glenbrook Road, P.O. 2310
Stamford, CT 06906
Contact: Mr. James E. Quill
Phone: 203-372-1980
Fax: 203-372-1898
E-Mail: JQuill@aol.com

Construction Materials Testing

Accreditation Valid Through: March 31, 2000

NVLAP

Code	Designation
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Aggregates

02/A12	ASTM C136
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Concrete

02/A01	ASTM C39
02/A02	ASTM C617
02/A43	ASTM C1064
02/G01	ASTM C31/C172/C143/C138/C231
02/G02	ASTM C173

Soil and Rock

02/L04	ASTM D698
02/L08	ASTM D1557
02/L16	ASTM D2487
02/L17	ASTM D2488
02/L23	ASTM D2922
02/L25	ASTM D3017

NVLAP LAB CODE 100320-0

Materials Testing, Inc.

200 Rowe Avenue
Milford, CT 06460
Contact: Mr. Frank A. Soucy
Phone: 203-878-2765
Fax: 203-878-1504

Construction Materials Testing

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Aggregates

02/A03 ASTM C29
02/A04 ASTM C40
02/A06 ASTM C88
02/A07 ASTM C117
02/A08 ASTM C123
02/A09 ASTM C127
02/A10 ASTM C128
02/A11 ASTM C131
02/A12 ASTM C136

Cement

02/A17 ASTM C109

Concrete

02/A01 ASTM C39
02/A02 ASTM C617
02/G01 ASTM C31/C172/C143/C138/C231
02/G02 ASTM C173

Soil and Rock

02/L02 ASTM D422
02/L04 ASTM D698
02/L05 ASTM D854
02/L06 ASTM D1140
02/L08 ASTM D1557
02/L13 ASTM D2216
02/L23 ASTM D2922
02/L31 ASTM D2167

NVLAP LAB CODE 100322-0

CSA International

178 Rexdale Boulevard
Etobicoke Ontario M9W 1R3
CANADA
Contact: Mr. Douglas Geralde
Phone: 416-747-4295
Fax: 416-747-4287
E-Mail: gerald@csa.ca

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

Commercial Products Testing

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Plumbing

19/F01 ASME A112.18.1M (Sec. 5.2)
19/F02 ASME A112.18.1M (Sec. 5.14)
19/F03 ASME A112.18.1M (Sec. 6.2)
19/F04 ASME A112.18.1M (Sec. 6.4)
19/F05 ASME A112.18.1M (Sec. 6.5)
19/F06 ASME A112.18.1M (Sec. 6.6)
19/F07 ASME A112.18.1M (Sec. 6.7)
19/F08 ASME A112.18.1M (Sec. 6.8)
19/F09 ASME A112.18.1M (Sec. 5.13)
19/F10 ASME A112.18.1M (Sec. 6.3)
19/M01 ANSI/CABO A117.1 (Sec. 4.24)
19/M02 ASME/ANSI A112.19.7M (Sec. 5, 7)
19/M03 ASME/ANSI A112.19.8M (Sec. 4, 5)
19/M04 ASTM F446
19/P01 ANSI Z124.1 (Sec. 4, 5, 6)
19/P02 ANSI Z124.2 (Sec. 4, 5, 6)
19/P03 ANSI Z124.3 (Sec. 4, 5, 6)
19/P04 ANSI Z124.4 (Sec. 4, 5)
19/P05 ANSI Z124.4 (Sec. 8) per ASME A112.19.6M (Sec. 7.1)
19/P06 ANSI/IAPMO Z124.6 (Sec. 4, 5, 6)
19/P07 ANSI/IAPMO Z124.8 (Sec. 4, 5)
19/U01 ASME/ANSI A112.18.3M (Sec. 5.1, 12.1, 12.2, 13, 14, 16)
19/V01 ASME A112.19.2M (Sec. 7.1)
19/V02 ASME A112.19.2M (Sec. 7.2)
19/V03 ASME A112.19.2M (Sec. 7.3)
19/V04 ASME A112.19.2M (Sec. 7.4)
19/V05 ASME A112.19.2M (Sec. 7.5)
19/V06 ASME A112.19.2M (Sec. 7.7)
19/W01 ASME A112.19.6 (Sec. 7.1.2)
19/W02 ASME A112.19.6 (Sec. 7.1.3)
19/W03 ASME A112.19.6 (Sec. 7.1.4)
19/W04 ASME A112.19.6 (Sec. 7.1.5)
19/W05 ASME A112.19.6 (Sec. 7.1.6)
19/W06 ASME A112.19.6 (Sec. 7.1.7)
19/W07 ASME A112.19.6 (Sec. 7.1.8)
19/W08 ASME A112.19.6 (Sec. 7.1.9)

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**NVLAP LAB CODE 100323-0****IBM Hudson Valley Acoustics Laboratory**

Building 704, M/S P226
522 South Road
Poughkeepsie, NY 12601-5400
Contact: Dr. Matthew A. Nobile
Phone: 914-435-4959
Fax: 914-432-9880
E-Mail: nobile@us.ibm.com

Acoustical Testing Services

Accreditation Valid Through: March 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
08/P03	ASTM C423 (ISO 354)
08/P10	ANSI S12.31 (ISO 3741)
08/P11	ISO 3744
08/P13	ANSI S12.32 (ISO 3742)
08/P21	ISO 3745
08/P24	ANSI S12.10 (ISO 7779)
08/P38	ANSI S12.11
08/P39	ANSI S12.5 (ISO 6926)

NVLAP LAB CODE 100325-0**City of San Jose, Materials Testing Laboratory**

Central Service Yard
1661 Senter Road, Building A
San Jose, CA 95112
Contact: Mr. Alberto C. Oxonian
Phone: 408-998-6015
Fax: 408-971-4880

Construction Materials Testing

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Aggregates

02/A03	ASTM C29
02/A04	ASTM C40
02/A06	ASTM C88
02/A07	ASTM C117
02/A09	ASTM C127
02/A10	ASTM C128
02/A11	ASTM C131
02/A12	ASTM C136
02/A13	ASTM C142
02/A15	ASTM D75
02/A16	ASTM D2419
02/A44	ASTM C566

Cement

02/A17	ASTM C109
02/A22	ASTM C183
02/A52	ASTM C1019

Concrete

02/A01	ASTM C39
02/A02	ASTM C617
02/A40	ASTM C78
02/A41	ASTM C192

02/A42	ASTM C360
02/A43	ASTM C1064
02/A45	ASTM C42
02/G01	ASTM C31/C172/C143/C138/C231
02/G02	ASTM C173

Road and Paving Materials

02/M01	ASTM D5
02/M03	ASTM D140
02/M05	ASTM D244
02/M07	ASTM D546
02/M08	ASTM D979
02/M09	ASTM D1074
02/M11	ASTM D1188
02/M12	ASTM D1559
02/M13	ASTM D1560
02/M14	ASTM D1561
02/M15	ASTM D1856
02/M16	ASTM D2042
02/M17	ASTM D2170
02/M18	ASTM D2171
02/M19	ASTM D2172
02/M20	ASTM D2872
02/M24	ASTM D2041
02/M25	ASTM D2726

Soil and Rock

02/L02	ASTM D422
02/L05	ASTM D854
02/L06	ASTM D1140
02/L08	ASTM D1557
02/L12	ASTM D2168
02/L13	ASTM D2216
02/L14	ASTM D2217
02/L16	ASTM D2487
02/L20	ASTM D4318
02/L23	ASTM D2922
02/L25	ASTM D3017
02/L47	ASTM D2844

Standard Practices

02/A38	ASTM E329
02/A39	ASTM C1077
02/L32	ASTM D3740
02/M26	ASTM D3666

NVLAP LAB CODE 100339-0**EMC Corporation**

4400 Computer Drive
Westboro, MA 01580
Contact: Mr. Joseph DeMonaco
Phone: 508-898-6051
Fax: 508-898-7729
E-Mail: Joe_Demonaco@dg.com

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Australian Standards referred to by clauses in ACA

Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 100340-0
Fairway Testing Company, Inc.

Smith Street
P.O. Box 578
Stony Point, NY 10980
Contact: Mr. Patsy J. Aguanno
Phone: 914-942-2088
Fax: 914-942-0995

Construction Materials Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Aggregates

02/A03	ASTM C29
02/A04	ASTM C40
02/A06	ASTM C88
02/A07	ASTM C117
02/A08	ASTM C123
02/A09	ASTM C127
02/A10	ASTM C128
02/A12	ASTM C136
02/A13	ASTM C142
02/A15	ASTM D75
02/A16	ASTM D2419
02/A44	ASTM C566

Concrete

02/A01	ASTM C39
02/A02	ASTM C617
02/A40	ASTM C78
02/A41	ASTM C192
02/A43	ASTM C1064
02/G01	ASTM C31/C172/C143/C138/C231
02/G02	ASTM C173

Road and Paving Materials

02/M01	ASTM D5
02/M07	ASTM D546
02/M08	ASTM D979
02/M11	ASTM D1188
02/M12	ASTM D1559
02/M15	ASTM D1856
02/M19	ASTM D2172
02/M24	ASTM D2041
02/M25	ASTM D2726

Soil and Rock

02/L01	ASTM D4220
02/L02	ASTM D422
02/L04	ASTM D698
02/L05	ASTM D854
02/L06	ASTM D1140
02/L07	ASTM D1556
02/L08	ASTM D1557
02/L13	ASTM D2216
02/L16	ASTM D2487
02/L17	ASTM D2488
02/L20	ASTM D4318
02/L21	ASTM D2434
02/L23	ASTM D2922
02/L25	ASTM D3017
02/L29	Corps of Engineers - Manual EM-1110-2-1906, Appendix VII, Permeability of Fine Grained Soils Using a Triaxial Apparatus

Standard Practices

02/A38	ASTM E329
02/A39	ASTM C1077
02/L32	ASTM D3740
02/M26	ASTM D3666

Steel Materials

02/S02	ASTM A370 (Sec. 14)/E190
02/S07	ASTM E709
02/S08	ASTM E165

NVLAP LAB CODE 100347-0
National Technical Systems

1146 Massachusetts Avenue
Boxborough, MA 01719
Contact: Mr. James Press
Phone: 978-266-1001
Fax: 978-266-1073

URL: <http://www.ntscorp.com>

MIL-STD-462 Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code	Designation
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Conducted Emissions:

12/A01	MIL-STD-462 Method CE01
12/A04	MIL-STD-462 Method CE02
12/A06	MIL-STD-462 Method CE03
12/A08	MIL-STD-462 Method CE04
12/A12	MIL-STD-462 Method CE07

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Conducted Susceptibility:**

12/B01 MIL-STD-462 Method CS01
12/B02 MIL-STD-462 Method CS02
12/B05 MIL-STD-462 Method CS06
12/B07 MIL-STD-462 Method CS09

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)
12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)
12/E07 MIL-STD-462 Method RS06

NVLAP LAB CODE 100351-0**KTL Ottawa Inc.**

3325 River Road, R.R. No. 5
Ottawa Ontario K1V 1H2
CANADA
Contact: Mr. Marc Beisheim
Phone: 613-737-9680
Fax: 613-737-9691
E-Mail: KTL@KTLCanada.com
URL: <http://www.ktl.com>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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**ACA Technical Standards as determined under the
Telecommunications Act of 1997**

12/T41	ACA TS-001
12/T42	ACA TS-002
12/T43	ACA TS-003
12/T44	ACA TS-004
12/T45	ACA TS-006
12/T46	ACA TS-008
12/T49	ACA TS-016

Australian Standards referred to by clauses in ACA**Technical Standards**

12/T50	AS/NZS 3260
12/T51	AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions
12/T01	Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
12/T01a	68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power

limit.; 68.310 Longitudinal balance limit.;
68.312 On-hook impedance limit.; 68.314
Billing protection
12/T01b 68.316 Hearing Aid Compatibility: technical
standards

12/T01c 68.302 Environmental simulation (Par. a,b)
**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 100374-0**Aeero Company, E-A-RCAL Acoustical
Laboratory**

7911 Zionsville Road
Indianapolis, IN 46268-1657
Contact: Mr. Elliott H. Berger
Phone: 317-692-3031
Fax: 317-692-3116
E-Mail: eberger@compuserve.com
URL: <http://www.e-a-r.com>

Acoustical Testing Services

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
08/P26	ANSI S3.19 (ANSI S3.19-1974)
08/P27	ANSI S12.6

NVLAP LAB CODE 100382-0**Eaton E3 Laboratory**

26201 Northwestern Highway
P.O. Box 766
Southfield, MI 48037-0766
Contact: Mr. Kimball Williams
Phone: 248-354-2845
Fax: 248-208-2018
E-Mail: k.williams@ieee.org
URL: <http://www.eaton.com/emc>

MIL-STD-462 Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Conducted Emissions:

12/A01	MIL-STD-462 Method CE01
12/A04	MIL-STD-462 Method CE02
12/A06	MIL-STD-462 Method CE03
12/A08	MIL-STD-462 Method CE04

12/A12 MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01

12/B02 MIL-STD-462 Method CS02

12/B05 MIL-STD-462 Method CS06

12/B07 MIL-STD-462 Method CS09

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01

12/D02 MIL-STD-462 Method RE02

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01

12/E02 MIL-STD-462 Method RS02

12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)

12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)

12/E07 MIL-STD-462 Method RS06

NVLAP LAB CODE 100396-0
Criterion Technology

1350 County Road #16

P.O. Box 387

Rollinsville, CO 80474

Contact: Mr. R. Barry Wallen

Phone: 303-682-6600

Fax: 303-682-6672

E-Mail: bwallen@criteriontech.com

URL: www.criteriontech.com

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA
Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference
(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 100398-0
GE Lighting- Engineering Support - NA

1975 Noble Road

Nela Park

Cleveland, OH 44112-6300

Contact: Mr. Joseph P. Marella

Phone: 216-266-3278

Fax: 216-266-3503

E-Mail: Joseph.marella@lighting.ge.com

Energy Efficient Lighting Products

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Color Measurements

22/C01 IES LM-58

Electrical Measurements

22/E01 IES LM-9

22/E02 IES LM-45

22/E03 IES LM-51

22/E04 IES LM-66

22/E05 ANSI-C78.375

Life Tests

22/L01 IES LM-40

22/L03 IES LM-49

22/L04 IES LM-65

Photometric Measurements

22/P01a IES LM-9 (Total Flux)

22/P01b IES LM-9 (Intensity)

22/P02a IES LM-20 (Total Flux)

22/P02b IES LM-20 (Intensity)

22/P03a IES LM-45 (Total Flux)

22/P03b IES LM-45 (Intensity)

22/P04a IES LM-51 (Total Flux)

22/P05a IES LM-66 (Total Flux)

22/P05b IES LM-66 (Intensity)

NVLAP LAB CODE 100399-0
Philips Lighting Corporate Calibration & Standards Laboratory

Route 3, P.O. Box 505, Houtt Road

Fairmont, WV 26554-9484

Contact: Dr. Ronald Gibbons

Phone: 304-367-7608

Fax: 304-367-7602

E-Mail: ronald.b.gibbons@philips.com

Energy Efficient Lighting Products

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Color Measurements

22/C01 IES LM-58

Electrical Measurements

22/E01 IES LM-9

22/E02 IES LM-45

22/E03 IES LM-51

22/E04 IES LM-66

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

22/E05 ANSI-C78.375

Life Tests

22/L04 IES LM-65

Photometric Measurements

22/P01a IES LM-9 (Total Flux)
22/P02a IES LM-20 (Total Flux)
22/P02b IES LM-20 (Intensity)
22/P03a IES LM-45 (Total Flux)
22/P03b IES LM-45 (Intensity)
22/P04a IES LM-51 (Total Flux)
22/P04b IES LM-51 (Intensity)
22/P05a IES LM-66 (Total Flux)
22/P05b IES LM-66 (Intensity)

NVLAP LAB CODE 100402-0**Intertek Testing Services NA Inc.**

3933 U.S. Route 11
Cortland, NY 13045-0950
Contact: Mr. John Sabelli
Phone: 607-758-6382
Fax: 607-756-9891
E-Mail: jsabelli@itsqs.com
URL: <http://www.worldlab.com>

Energy Efficient Lighting Products

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Color Measurements

22/C01 IES LM-58

Electrical Measurements

22/E01 IES LM-9
22/E02 IES LM-45
22/E03 IES LM-51
22/E04 IES LM-66
22/E05 ANSI-C78.375
22/E06 ANSI-C78.386
22/E07 ANSI-C78.387
22/E08 ANSI-C78.388

Life Tests

22/L03 IES LM-49

Photometric Measurements

22/P01a IES LM-9 (Total Flux)
22/P02a IES LM-20 (Total Flux)
22/P03a IES LM-45 (Total Flux)
22/P03b IES LM-45 (Intensity)
22/P04a IES LM-51 (Total Flux)
22/P05a IES LM-66 (Total Flux)
22/P05b IES LM-66 (Intensity)

Thermal Insulation Materials

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Thermal Resistance

01/T06 ASTM C518

NVLAP LAB CODE 100403-0**OSRAM SYLVANIA, Test & Measurements Laboratory**

71 Cherry Hill Dr.
Beverly, MA 01915
Contact: Dr. Ronald O. Daubach
Phone: 508-750-1593
Fax: 508-750-1794
E-Mail: ronald.daubach@sylvania.com

Energy Efficient Lighting Products

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Color Measurements

22/C01 IES LM-58

Electrical Measurements

22/E01 IES LM-9
22/E02 IES LM-45
22/E03 IES LM-51
22/E04 IES LM-66
22/E05 ANSI-C78.375
22/E06 ANSI-C78.386
22/E07 ANSI-C78.387
22/E08 ANSI-C78.388

Life Tests

22/L01 IES LM-40
22/L02 IES LM-47
22/L03 IES LM-49
22/L04 IES LM-65

Photometric Measurements

22/P01a IES LM-9 (Total Flux)
22/P01b IES LM-9 (Intensity)
22/P02a IES LM-20 (Total Flux)
22/P02b IES LM-20 (Intensity)
22/P03a IES LM-45 (Total Flux)
22/P03b IES LM-45 (Intensity)
22/P04a IES LM-51 (Total Flux)
22/P04b IES LM-51 (Intensity)
22/P05a IES LM-66 (Total Flux)
22/P05b IES LM-66 (Intensity)

NVLAP LAB CODE 100404-0**Industrial Acoustics Company, Inc.,
Aero-Acoustics Laboratory**

1160 Commerce Avenue
Bronx, NY 10462
Contact: Mr. Jon Weinstein
Phone: 718-931-8000
Fax: 718-863-1138
E-Mail: jonw@industrialacoustics.com
URL: <http://www.industrialacoustics.com>

Acoustical Testing Services

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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08/P02 ASTM C384
08/P03 ASTM C423 (ISO 354)
08/P04 ASTM C522

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

08/P06 ASTM E90 (ISO 140, Part 3)
08/P08 ASTM E596
08/P30 ASTM E1408
08/P36 ASTM E477

NVLAP LAB CODE 100405-0**Motorola SSG EMC/TEMPEST Laboratory**

8201 E. McDowell Road
Scottsdale, AZ 85252
Contact: Mr. Dwayne R. Awerkanp
Phone: 602-441-3138
Fax: 602-441-3625
E-Mail: p09969@email.mot.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference**(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

MIL-STD-462 Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Conducted Emissions:

12/A01 MIL-STD-462 Method CE01
12/A04 MIL-STD-462 Method CE02
12/A06 MIL-STD-462 Method CE03
12/A08 MIL-STD-462 Method CE04
12/A10 MIL-STD-462 Method CE06
12/A12 MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01
12/B02 MIL-STD-462 Method CS02
12/B04 MIL-STD-462 Method
CS03/CS04/CS05/CS08

12/B05 MIL-STD-462 Method CS06
12/B06 MIL-STD-462 Method CS07
12/B07 MIL-STD-462 Method CS09
12/B08 MIL-STD-462 Method CS10
12/B09 MIL-STD-462 Method CS11
12/B10 MIL-STD-462 Method CS12
12/B11 MIL-STD-462 Method CS13

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02
12/D03 MIL-STD-462 Method RE03

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)
12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)
12/E05 MIL-STD-462 Method RS05
12/E07 MIL-STD-462 Method RS06

NVLAP LAB CODE 100406-0**Inland Foundation Engineering, Inc.**

1310 South Santa Fe Avenue
P.O. Box 937
San Jacinto, CA 92581-0937
Contact: Mr. Donald O. Swenson
Phone: 909-654-1555
Fax: 909-654-0551

Construction Materials Testing

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Aggregates

02/A03 ASTM C29
02/A04 ASTM C40
02/A06 ASTM C88
02/A07 ASTM C117
02/A09 ASTM C127
02/A10 ASTM C128
02/A11 ASTM C131
02/A12 ASTM C136
02/A15 ASTM D75
02/A16 ASTM D2419
02/A44 ASTM C566
02/A46 ASTM C535

Concrete

02/A01 ASTM C39
02/A02 ASTM C617
02/A41 ASTM C192
02/A43 ASTM C1064
02/A45 ASTM C42
02/G01 ASTM C31/C172/C143/C138/C231

Road and Paving Materials

02/M08 ASTM D979
02/M11 ASTM D1188

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

02/M13 ASTM D1560
02/M14 ASTM D1561
02/M25 ASTM D2726

Soil and Rock

02/L01 ASTM D4220
02/L02 ASTM D422
02/L04 ASTM D698
02/L05 ASTM D854
02/L06 ASTM D1140
02/L07 ASTM D1556
02/L08 ASTM D1557
02/L16 ASTM D2487
02/L18 ASTM D3080
02/L20 ASTM D4318
02/L21 ASTM D2434
02/L23 ASTM D2922
02/L25 ASTM D3017
02/L47 ASTM D2844

Standard Practices

02/A38 ASTM E329
02/A39 ASTM C1077
02/L32 ASTM D3740
02/M26 ASTM D3666

NVLAP LAB CODE 100408-0**NAWC AD 5.1.7.3. EMI Lab**

48298 Shaw Road, Unit 4, Bldg. 1461
Patuxent River, MD 20670-1900
Contact: Mr. Robert Smith
Phone: 301-342-0851
Fax: 301-342-5390
E-Mail: smithRB@navair.navy.mil

MIL-STD-462 Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Conducted Emissions:

12/A01 MIL-STD-462 Method CE01
12/A04 MIL-STD-462 Method CE02
12/A06 MIL-STD-462 Method CE03
12/A08 MIL-STD-462 Method CE04

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01
12/B02 MIL-STD-462 Method CS02
12/B05 MIL-STD-462 Method CS06

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)
12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)

NVLAP LAB CODE 100409-0**Intertek Testing Services NA Inc.**

4317-A Park Drive N.W.
Norcross, GA 30093-2968
Contact: Mr. David C. Dennis
Phone: 770-925-2444
Fax: 770-925-7294
E-Mail: ddennis@itsqs.com
URL: <http://www.worldlab.com>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

**ACA Technical Standards as determined under the
Telecommunications Act of 1997**

12/T41 ACA TS-001
12/T46 ACA TS-008

**Australian Standards referred to by clauses in ACA
Technical Standards**

12/T50 AS/NZS 3260
12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions
12/T01 Terminal Equipment Network Protection
Standards, FCC Method - 47 CFR Part 68 -
Analog and Digital
12/T01a 68.302 (Par. c,d,e,f) Environmental simulation;
68.304 Leakage current limit.; 68.306
Hazardous voltage limit.; 68.308 Signal power
limit.; 68.310 Longitudinal balance limit.;
68.312 On-hook impedance limit.; 68.314
Billing protection
12/T01b 68.316 Hearing Aid Compatibility: technical
standards
12/T01c 68.302 Environmental simulation (Par. a,b)

**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 100411-0
Nortel Networks

2305 Mission College Boulevard
P.O. Box 58173
Santa Clara, CA 95052-8173
Contact: Mr. Kenneth Dorn
Phone: 408-565-2186
Fax: 408-565-2575
E-Mail: kdorn@nortelnetworks.com

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code	Designation
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ACA Technical Standards as determined under the Telecommunications Act of 1997

12/T41	ACA TS-001
12/T42	ACA TS-002
12/T43	ACA TS-003
12/T44	ACA TS-004
12/T45	ACA TS-006
12/T49	ACA TS-016

Australian Standards referred to by clauses in ACA Technical Standards

12/T50	AS/NZS 3260
12/T51	AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions
12/T01	Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
12/T01a	68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection
12/T01b	68.316 Hearing Aid Compatibility: technical standards
12/T01c	68.302 Environmental simulation (Par. a,b)

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference

Characteristics of Information Technology Equipment

NVLAP LAB CODE 100413-0
Compaq Regulatory Compliance Engineering - East

200 Forest Street, Mail Stop MRO1-D
Marlboro, MA 01752-3085
Contact: Ms. Diana Montvitt-Jones
Phone: 508-467-2851
Fax: 508-467-2846
E-Mail: diana.montvitt-jones@digital.com
URL: <http://www.digital.com/regulatory>

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 100414-0
Underwriters Laboratories Inc.

333 Pfingsten Road
Northbrook, IL 60062-2096
Contact: Mr. Rick A. Titus
Phone: 847-272-8800 x43281
Fax: 847-509-6321
E-Mail: Rick.A.Titus@us.ul.com
URL: <http://www.ul.com>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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ACA Technical Standards as determined under the Telecommunications Act of 1997

12/T41	ACA TS-001
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Australian Standards referred to by clauses in ACA Technical Standards

12/T50	AS/NZS 3260
12/T51	AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

12/F01b Radiated Emissions
International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

Thermal Insulation Materials

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Corrosiveness

01/C01 ASTM C739 (Sec. 9)

01/C02 16 CFR-Part 1209.5

Flammability

01/F02 ASTM E84

01/F07 16 CFR-Part 1209.6

01/F08 16 CFR-Part 1209.7

01/F09 ASTM C739 (Sec. 10)

01/F10 ASTM C739 (Sec. 14)

Mass, Density, and Dimensional Stability

01/D24 ASTM C739 (Sec. 12)

01/D26 16 CFR-Part 1209.4

01/D27 ASTM C739 (Sec. 8)

Related Material Properties

01/V05 ASTM C739 (Sec. 11)

Thermal Resistance

01/T06 ASTM C518

01/T10 ASTM C687

NVLAP LAB CODE 100416-0**SGS U.S. Testing Company, Inc.**

1341 North 108th East Avenue

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Commercial Products Testing

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Plumbing

19/F01 ASME A112.18.1M (Sec. 5.2)

19/F02 ASME A112.18.1M (Sec. 5.14)

19/F03 ASME A112.18.1M (Sec. 6.2)

19/F04 ASME A112.18.1M (Sec. 6.4)

19/F05 ASME A112.18.1M (Sec. 6.5)

19/F06 ASME A112.18.1M (Sec. 6.6)

19/F07 ASME A112.18.1M (Sec. 6.7)

19/F08 ASME A112.18.1M (Sec. 6.8)

19/F09 ASME A112.18.1M (Sec. 5.13)

19/F10 ASME A112.18.1M (Sec. 6.3)

19/M01 ANSI/CABO A117.1 (Sec. 4.24)

19/M02 ASME/ANSI A112.19.7M (Sec. 5, 7)

19/M03 ASME/ANSI A112.19.8M (Sec. 4, 5)

19/M04 ASTM F446

19/M05 ASTM F462

19/P01 ANSI Z124.1 (Sec. 4, 5, 6)

19/P02 ANSI Z124.2 (Sec. 4, 5, 6)

19/P03 ANSI Z124.3 (Sec. 4, 5, 6)

19/P04 ANSI Z124.4 (Sec. 4, 5)

19/P05 ANSI Z124.4 (Sec. 8) per ASME A112.19.6M (Sec. 7.1)

19/P06 ANSI/IAPMO Z124.6 (Sec. 4, 5, 6)

19/P07 ANSI/IAPMO Z124.8 (Sec. 4, 5)

19/V01 ASME A112.19.2M (Sec. 7.1)

19/V02 ASME A112.19.2M (Sec. 7.2)

19/V03 ASME A112.19.2M (Sec. 7.3)

19/V04 ASME A112.19.2M (Sec. 7.4)

19/V05 ASME A112.19.2M (Sec. 7.5)

19/V06 ASME A112.19.2M (Sec. 7.7)

19/W01 ASME A112.19.6 (Sec. 7.1.2)

19/W02 ASME A112.19.6 (Sec. 7.1.3)

19/W03 ASME A112.19.6 (Sec. 7.1.4)

19/W04 ASME A112.19.6 (Sec. 7.1.5)

19/W05 ASME A112.19.6 (Sec. 7.1.6)

19/W06 ASME A112.19.6 (Sec. 7.1.7)

19/W07 ASME A112.19.6 (Sec. 7.1.8)

19/W08 ASME A112.19.6 (Sec. 7.1.9)

Thermal Insulation Materials

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Corrosiveness

01/C01 ASTM C739 (Sec. 9)

01/C02 16 CFR-Part 1209.5

Flammability

01/F08 16 CFR-Part 1209.7

01/F10 ASTM C739 (Sec. 14)

Mass, Density, and Dimensional Stability

01/D02 ASTM C167

01/D18 ASTM D1622

01/D24 ASTM C739 (Sec. 12)

01/D26 16 CFR-Part 1209.4

01/D27 ASTM C739 (Sec. 8)

Related Material Properties

01/V04 ASTM E96

01/V05 ASTM C739 (Sec. 11)

01/V06 ASTM C739 (Sec. 15)

NVLAP LAB CODE 100417-0

Celotex Testing Services

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Acoustical Testing Services

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
08/P03	ASTM C423
08/P04	ASTM C522
08/P06	ASTM E90
08/P07	ASTM E492
08/P34	ASTM E1414
08/P35	ASTM E1050
08/P49	AMA-1-II-67

Thermal Insulation Materials

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
01/F02	ASTM E84

Flammability

Mass, Density, and Dimensional Stability

01/D03	ASTM C209 (Sec. 7)
01/D04	ASTM C209 (Sec. 14, 2 hour)
01/D05	ASTM C209 (Sec. 14, 24 hour) by D1037 (Sec. 100-106)
01/D06	ASTM C209 (Sec. 15) by D1037 (Sec. 107-110)
01/D07	ASTM C272
01/D18	ASTM D1622
01/D19	ASTM D2126
01/D23	ASTM D2842

Related Material Properties

01/V04	ASTM E96
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Strength

01/S01a	ASTM C165 (Proc. A)
01/S02	ASTM C203
01/S03	ASTM C209 (Sec. 10)
01/S04	ASTM C209 (Sec. 11)
01/S05	ASTM C209 (Sec. 12)
01/S06	ASTM C209 (Sec. 13)
01/S07	ASTM C273
01/S10	ASTM D828
01/S11	ASTM D1621 (Proc. A of ASTM Practice D618)

Thermal Resistance

01/T04	ASTM C236
01/T06	ASTM C518

NVLAP LAB CODE 100418-0

Composite Panel Association (CPA)

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Wood Based Products

Accreditation Valid Through: September 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
23/G02	ASTM D1037 (Part A, Sec. 11-16, 18-20)
23/G03	ASTM D1037 (Part A, Sec. 28-33)

General Wood Products

Particleboard and Medium-Density Fiberboard

23/P02	ASTM D1037 (Part A, Sec. 61-67)
23/P03	ASTM D1037 (Part A, Sec. 68-73)
23/P05	ASTM D1037 (Part A, Sec. 100-106)
23/P06	ASTM D1037 (Part A, Sec. 107-110)
23/P08	ASTM D1037 (Part A, Sec. 126-127)
23/P09	ANSI/A208.1 (Sec. 3.4.4)
23/T01	ASTM E1333
23/T03	EN 120:92
23/T04	ASTM D5582
23/T05	ASTM D6007

NVLAP LAB CODE 100419-0

Test Site Services, Inc.

P.O. Box 766
Marlboro, MA 01752
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Phone: 508-481-1684
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FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
12/T51	AS/NZS 3548

Australian Standards referred to by clauses in ACA

Technical Standards

Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 100420-0**Timberco, Inc.- dba TECO**

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Wood Based Products

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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General Wood Products

23/G01	ASTM D906
23/G02	ASTM D1037 (Part A, Sec. 11-20)
23/G03	ASTM D1037 (Part A, Sec. 28-33)
23/G04	ASTM D2395 (Method A)
23/G05	ASTM D2718
23/G07	ASTM D3043 (Method C)
23/G08	ASTM D4442 (Method A)
23/G09	ASTM D4442 (Method B)
23/G10	ASTM E72 (Sec. 14)
23/G11	ASTM E72 (Sec. 15)
23/G12	ASTM E564

Hardwood Plywood

23/H01	HP-1 (Sec. 4.3)
23/H02	HP-1 (Sec. 4.4)
23/H03	HP-1 (Sec. 4.6)
23/H04	ASTM E96

Particleboard and Medium-Density Fiberboard

23/P01	ASTM D1037 (Part A, Sec. 21-27)
23/P02	ASTM D1037 (Part A, Sec. 61-67)
23/P03	ASTM D1037 (Part A, Sec. 68-73)
23/P05	ASTM D1037 (Part A, Sec. 100-106)
23/P06	ASTM D1037 (Part A, Sec. 107-110)
23/P07	ASTM D1037 (Part A, Sec. 118-124)
23/P08	ASTM D1037 (Part A, Sec. 126-127)
23/P09	ANSI/A208.1 (Sec. 3.4.4)
23/T01	ASTM E1333
23/T02	FTM 1-83
23/T04	ASTM D5582

Structural Composite Lumber, Glulam, I-Joists,**Laminated Veneer Lumber**

23/J01	ASTM D143 (Sec. 8)
23/J02	ASTM D143 (Sec. 14)
23/J04	ASTM D198 (Sec. 4-11)
23/J06	ASTM D905
23/J07	ASTM D1037 (Part A, Sec. 87-90)
23/J08	ASTM D1101
23/J09	ASTM D1761 (Sec. 1-11)
23/J10	ASTM D2559 (Resistance to Shear)

23/J11	ASTM D2559 (Resistance to Delamination)
23/J12	ASTM D4688
23/J13	AITC 200 (T106)
23/J14	AITC 200 (T107)
23/J15	AITC 200 (T110)
23/J16	AITC 200 (T114)
23/J17	AITC 200 (T116)
23/J20	ASTM D3110

Structural Use Panels

23/S04	ASTM E661
23/S05	PS-1 (Sec. 4.5.2)
23/S06	PS-1 (Sec. 4.5.3) (CAN/CSA-0325.1-88)
23/S07	PS-2 (Sec. 6.4.1) (CAN/CSA-0325.1-88)
23/S08	PS-2 (Sec. 6.4.2) (CAN/CSA-0325.1-88)
23/S09	PS-2 (Sec. 6.4.4) (CAN/CSA-0325.1-88)
23/S10	PS-2 (Sec. 6.4.7) (CAN/CSA-0325.1-88)
23/S11	PS-2 (Sec. 6.4.8) (CAN/CSA-0325.1-88)
23/S12	PS-2 (Sec. 6.4.9) (CAN/CSA-0325.1-88)
23/S13	PS-2 (Sec. 6.4.17) (CAN/CSA-0325.1-88)
23/S14	PS-2 (Sec. 6.4.18) (CAN/CSA-0325.1-88)
23/S15	PS-2 (Sec. 6.4.19) (Supplement No.1-92 to CAN/CSA-0325.1-88)
23/S16	PS-2 (Sec. 6.4.20) (Supplement No.1-92 to CAN/CSA-0325.1-88)

NVLAP LAB CODE 100421-0**PFS Corporation**

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Wood Based Products

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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General Wood Products

23/G01	ASTM D906
23/G02	ASTM D1037 (Part A, Sec. 11-20)
23/G03	ASTM D1037 (Part A, Sec. 28-33)
23/G04	ASTM D2395 (Method A)
23/G05	ASTM D2718
23/G06	ASTM D2719 (Method C)
23/G08	ASTM D4442 (Method A)
23/G09	ASTM D4442 (Method B)
23/G10	ASTM E72 (Sec. 14)
23/G11	ASTM E72 (Sec. 15)
23/G12	ASTM E564
23/G13	ASTM E695
23/G14	AFG-01-84 (Sec. 3.1)
23/G15	AFG-01-84 (Sec. 3.2)
23/G16	ASTM E489
23/G17	ASTM E767
23/G18	ASTM D1761 (Sec. 41-52)
23/G19	ASTM E72 (Sec. 9, 10)
23/G20	ASTM E72 (Sec. 11, 17, 20)
23/G21	ASTM E72 (Sec. 13, 18, 21)
23/G22	ASTM D5764
23/G23	ASTM E1803

Hardwood Plywood

23/H01	HP-1 (Sec. 4.3)
23/H02	HP-1 (Sec. 4.4)
23/H03	HP-1 (Sec. 4.6)
23/H04	ASTM E96

Particleboard and Medium-Density Fiberboard

23/P01	ASTM D1037 (Part A, Sec. 21-27)
23/P02	ASTM D1037 (Part A, Sec. 61-67)
23/P03	ASTM D1037 (Part A, Sec. 68-73)
23/P04	ASTM D1037 (Part A, Sec. 81-86)
23/P05	ASTM D1037 (Part A, Sec. 100-106)
23/P06	ASTM D1037 (Part A, Sec. 107-110)
23/P07	ASTM D1037 (Part A, Sec. 118-124)
23/P08	ASTM D1037 (Part A, Sec. 126-127)
23/P09	ANSI/A208.1 (Sec. 3.4.4)
23/T01	ASTM E1333
23/T02	FTM 1-83
23/T04	ASTM D5582

Sandwich Constructions

23/X01	ASTM C273
23/X02	ATSM C297
23/X03	ASTM C365 (Method A)
23/X04	ASTM C393
23/X05	ASTM C480
23/X06	ASTM C481
23/X07	ASTM D1183

Structural Composite Lumber, Glulam, I-Joists,
Laminated Veneer Lumber

23/J01	ASTM D143 (Sec. 8)
23/J02	ASTM D143 (Sec. 14)
23/J03	ASTM D143 (Sec. 16)
23/J04	ASTM D198 (Sec. 4-11)
23/J06	ASTM D905
23/J07	ASTM D1037 (Part A, Sec. 87-90)
23/J08	ASTM D1101
23/J09	ASTM D1761 (Sec. 1-11)
23/J10	ASTM D2559 (Resistance to Shear)
23/J11	ASTM D2559 (Resistance to Delamination)
23/J12	ASTM D4688
23/J13	AITC 200 (T106)
23/J14	AITC 200 (T107)
23/J15	AITC 200 (T110)
23/J16	AITC 200 (T114)
23/J17	AITC 200 (T116)
23/J21	ASTM D3535

Structural Use Panels

23/S01	ASTM D3044
23/S03	ASTM D3501 (Method B)
23/S04	ASTM E661
23/S05	PS-1 (Sec. 4.5.2)
23/S06	PS-1 (Sec. 4.5.3) (CAN/CSA-0325.1-88)
23/S07	PS-2 (Sec. 6.4.1) (CAN/CSA-0325.1-88)
23/S08	PS-2 (Sec. 6.4.2) (CAN/CSA-0325.1-88)
23/S09	PS-2 (Sec. 6.4.4) (CAN/CSA-0325.1-88)
23/S10	PS-2 (Sec. 6.4.7) (CAN/CSA-0325.1-88)
23/S11	PS-2 (Sec. 6.4.8) (CAN/CSA-0325.1-88)
23/S12	PS-2 (Sec. 6.4.9) (CAN/CSA-0325.1-88)
23/S13	PS-2 (Sec. 6.4.17) (CAN/CSA-0325.1-88)
23/S14	PS-2 (Sec. 6.4.18) (CAN/CSA-0325.1-88)
23/S15	PS-2 (Sec. 6.4.19) (Supplement No.1-92 to CAN/CSA-0325.1-88)

23/S16	PS-2 (Sec. 6.4.20) (Supplement No.1-92 to CAN/CSA-0325.1-88)
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NVLAP LAB CODE 100423-0
**APA - The Engineered Wood Association
Research Center**

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Wood Based Products

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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General Wood Products

23/G05	ASTM D2718
23/G06	ASTM D2719 (Method C)
23/G07	ASTM D3043 (Method C)
23/G10	ASTM E72 (Sec. 14)
23/G11	ASTM E72 (Sec. 15)

Structural Composite Lumber, Glulam, I-Joists,
Laminated Veneer Lumber

23/J04	ASTM D198 (Sec. 4-11)
23/J05	ASTM D198 (Sec. 28-35)
23/J09	ASTM D1761 (Sec. 1-11)
23/J10	ASTM D2559 (Resistance to Shear)
23/J11	ASTM D2559 (Resistance to Delamination)
23/J12	ASTM D4688

Structural Use Panels

23/S01	ASTM D3044
23/S02	ASTM D3500 (Method B)
23/S03	ASTM D3501 (Method B)
23/S04	ASTM E661
23/S07	PS-2 (Sec. 6.4.1) (CAN/CSA-0325.1-88)
23/S08	PS-2 (Sec. 6.4.2) (CAN/CSA-0325.1-88)
23/S09	PS-2 (Sec. 6.4.4) (CAN/CSA-0325.1-88)
23/S10	PS-2 (Sec. 6.4.7) (CAN/CSA-0325.1-88)
23/S11	PS-2 (Sec. 6.4.8) (CAN/CSA-0325.1-88)
23/S12	PS-2 (Sec. 6.4.9) (CAN/CSA-0325.1-88)
23/S13	PS-2 (Sec. 6.4.17) (CAN/CSA-0325.1-88)
23/S14	PS-2 (Sec. 6.4.18) (CAN/CSA-0325.1-88)
23/S15	PS-2 (Sec. 6.4.19) (Supplement No.1-92 to CAN/CSA-0325.1-88)
23/S16	PS-2 (Sec. 6.4.20) (Supplement No.1-92 to CAN/CSA-0325.1-88)

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 100424-0

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Scarborough Ontario M1X 1A2
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Acoustical Testing Services

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
08/P03	ASTM C423
08/P10	ANSI S12.31 (ISO 3741)
08/P36	ASTM E477
08/P44	ISO 354

NVLAP LAB CODE 100425-0

Johns Manville Technical Center

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Acoustical Testing Services

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
08/P03	ASTM C423 (ISO 354)
08/P04	ASTM C522
08/P06	ASTM E90 (ISO 140, Part 3)
08/P10	ANSI S12.31 (ISO 3741)
08/P13	ANSI S12.32 (ISO 3742)
08/P24	ANSI S12.10 (ISO 7779)
08/P33	ASTM E1111
08/P34	ASTM E1414 (AMA-1-II-67)(ISO 140, Part 9)
08/P35	ASTM E1050
08/P36	ASTM E477

Thermal Insulation Materials

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Flammability

01/F01	TAPPI T461-OM
01/F02	ASTM E84
01/F05	ASTM E136

Mass, Density, and Dimensional Stability

01/D02	ASTM C167
01/D03	ASTM C209 (Sec. 6)
01/D04	ASTM C209 (Sec. 13)
01/D05	ASTM C209 (S. 13) by D1037 (S. 100-106)
01/D08	ASTM C302
01/D09	ASTM C303

01/D11	ASTM C356
01/D12	ASTM C411
01/D13	ASTM C519
Related Material Properties	
01/V04	ASTM E96
01/V07	ASTM C1104/C1104M

Strength

01/S01a	ASTM C165 (Proc. A)
01/S01b	ASTM C165 (Proc. B)
01/S02	ASTM C203
01/S03	ASTM C209 (Sec. 9)
01/S04	ASTM C209 (Sec. 10)
01/S05	ASTM C209 (Sec. 11)
01/S06	ASTM C209 (Sec. 12)
01/S08	ASTM C446
01/S10	ASTM D828

Thermal Resistance

01/T01	ASTM C177
01/T05	ASTM C335
01/T06	ASTM C518
01/T10	ASTM C687
01/T11	ASTM C976

NVLAP LAB CODE 100426-0

KTL Dallas, Inc.

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Lewisville, TX 75057-3136
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FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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ACA Technical Standards as determined under the Telecommunications Act of 1997

12/T41	ACA TS-001
12/T42	ACA TS-002
12/T43	ACA TS-003
12/T44	ACA TS-004
12/T45	ACA TS-006
12/T46	ACA TS-008
12/T49	ACA TS-016

Australian Standards referred to by clauses in ACA Technical Standards

12/T50	AS/NZS 3260
12/T51	AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions
12/T01	Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
12/T01a	68.302 (Par. c,d,e,f) Environmental simulation;

	68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection
12/T01b	68.316 Hearing Aid Compatibility: technical standards
12/T01c	68.302 Environmental simulation (Par. a,b)
International Special Committee on Radio Interference (CISPR) Methods	
12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 100427-0
Michael & Associates

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Acoustical Testing Services

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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08/P26	ANSI S3.19 (ANSI S3.19-1974)
08/P27	ANSI S12.6

NVLAP LAB CODE 100428-0
Matsushita EMC Center

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Fax: 81-795-52-5682
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FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA
Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 100430-0
Professional Service Industries, Inc., Pittsburgh Test. Lab. Div.

2710 West 5th Avenue
Eugene, OR 97402
Contact: Mr. Ralph M. Vaughn
Phone: 541-484-9212
Fax: 541-344-2735

Wood Based Products

Accreditation Valid Through: March 31, 2000

NVLAP

Code	Designation
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General Wood Products

23/G02	ASTM D1037 (Part A, Sec. 11-20)
23/G03	ASTM D1037 (Part A, Sec. 28-33)
23/G08	ASTM D4442 (Method A)
23/G10	ASTM E72
23/G11	ASTM E72 (Wet)

Hardwood Plywood

23/H01	HP-1 (Sec. 4.3)
23/H02	HP-1 (Sec. 4.4)
23/H03	HP-1 (Sec. 4.6)

Particleboard and Medium-Density Fiberboard

23/P04	ASTM D1037 (Part A, Sec. 81-86)
23/P05	ASTM D1037 (Part A, Sec. 100-106)
23/P06	ASTM D1037 (Part A, Sec. 107-110)
23/P07	ASTM D1037 (Part A, Sec. 118-124)
23/P08	ASTM D1037 (Part A, Sec. 126-127)
23/P09	ANSI/A208.1 (Sec. 3.4.4)
23/T01	ASTM E1333
23/T02	FTM 1-83

Structural Use Panels

23/S04	ASTM E661
23/S05	PS-1 (Sec. 4.5.2)
23/S06	PS-1 (Sec. 4.5.3) (CAN/CSA-0325.1-88)
23/S07	PS-2 (Sec. 6.4.1) (CAN/CSA-0325.1-88)
23/S08	PS-2 (Sec. 6.4.2) (CAN/CSA-0325.1-88)
23/S09	PS-2 (Sec. 6.4.4) (CAN/CSA-0325.1-88)
23/S10	PS-2 (Sec. 6.4.7) (CAN/CSA-0325.1-88)
23/S11	PS-2 (Sec. 6.4.8) (CAN/CSA-0325.1-88)
23/S12	PS-2 (Sec. 6.4.9) (CAN/CSA-0325.1-88)
23/S13	PS-2 (Sec. 6.4.17) (CAN/CSA-0325.1-88)
23/S14	PS-2 (Sec. 6.4.18) (CAN/CSA-0325.1-88)
23/S15	PS-2 (Sec. 6.4.19) (Supplement No.1-92 to CAN/CSA-0325.1-88)
23/S16	PS-2 (Sec. 6.4.20) (Supplement No.1-92 to CAN/CSA-0325.1-88)

NVLAP LAB CODE 100431-0

PCTEST Engineering Laboratory, Inc.

6660-B Dobbin Road
Columbia, MD 21045-4708
Contact: Mr. Randy Ortanez
Phone: 410-290-6652
Fax: 410-290-6654
E-Mail: randy@pctestlab.com
URL: <http://www.pctestlab.com>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA

Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 100432-0

InfoGard Laboratories, Inc.

641 Higuera Street, Second Floor
San Luis Obispo, CA 93401
Contact: Ms. Emily Culligan
Phone: 805-783-0810
Fax: 805-783-0889
E-Mail: eculligan@infogard.com
URL: <http://www.infogard.com>

Cryptographic Modules Testing

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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17/C01	NIST-CSTT:140-1; National Institute of Standards and Technology-Cryptographic Support Test Tool (CSTT) for the Federal Information Processing Standard 140-1 (FIPS 140-1) "Security Requirements for
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Cryptographic Modules."

17/C01a	Test Method Group 1: All test methods derived from FIPS 140-1 and specified in the CSTT, except those listed in Group 2 and Group 3.
17/C01b	Test Method Group 2: Test methods for Physical Security, Level 4 derived from FIPS 140-1 and specified in the CSTT
17/C01c	Test Method Group 3: Test methods for Software Security, Level 4 derived from FIPS 140-1 and specified in the CSTT
17/C02	FIPS-Approved Cryptographic Algorithms (see < http://csrc.nist.gov/cryptval >) as required in FIPS PUB 140-1.

NVLAP LAB CODE 100501-0

Baltimore Gas & Electric Company

1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702
Contact: Mr. Timothy J. Kirkham
Phone: 410-495-6885
Fax: 410-495-2539
E-Mail: tim.j.kirkham@bge.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic automatic reader UD710A.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802 in a Panasonic UD874A holder for ANSI-N13.11 categories I, II, IIIA, IV, VC, VI, VII, VIII.

NVLAP LAB CODE 100502-0

Union Electric Company, Callaway Plant

P.O. Box 620
Fulton, MO 65251-0620
Contact: Mr. Christopher C. Graham
Phone: 573-676-8380
Fax: 573-676-4476
E-Mail: ccgraham@cal.ameren.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: March 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic Automatic reader model UD710A.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD-802-AS in a Panasonic UD-874A holder for ANSI HPS N13.11 categories I, II, IIIA, IV, VC, VI, VII, VIII.

NVLAP LAB CODE 100503-0**Mallinckrodt, Inc.**

2703 Wagner Place
Maryland Heights, MO 63043
Contact: Mr. Roger Moroney
Phone: 314-654-7457
Fax: 314-654-7571
E-Mail: roger.moroney@mkg.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing Harshaw automatic reader model 6600E.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Harshaw TLD model 8825 for ANSI-N13.11 categories II, IIIB, IV, VC, VI, VII.

NVLAP LAB CODE 100504-0**Naval Dosimetry Center**

National Naval Medical Center
8901 Wisconsin Ave.
Bethesda, MD 20889-5614
Contact: CAPT K. Mendenhall
Phone: 301-295-0142/5410
Fax: 301-295-5981
E-Mail: kmendenhall@navdoscen.med.navy.mil

Ionizing Radiation Dosimetry

Accreditation Valid Through: December 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing the Harshaw/Bicron automatic reader models 8800PC and 6600.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 and ANSI HPS N13.32-1995 through testing.

Harshaw 8801 (DT 648/PD)(Harshaw 4 Chip Card, 3 TLD700, 1 TLD600) in a Type 88 holder for ANSI-N13.11 categories I, II, IIIA, IIIB, IV, VA, VI, VII, VIII.

Harshaw extremity TLD EXTRAD-100 in a finger ring

holder for ANSI HPS N13.32 (NIST Handbook 150-4, Table 2) categories I, II, IIIB, IV, VA.

NVLAP LAB CODE 100505-0**Duke Power Company Dosimetry Laboratory**

526 South Church Street
P.O. Box 1006
Charlotte, NC 28201-1006
Contact: Mr. Donald N. Mei
Phone: 704-382-7547
Fax: 704-382-4477
E-Mail: dnmei@duke-energy.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: March 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Harshaw Model 8800.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Harshaw TLD card Type 8801 in a model 8814 BGN holder for ANSI-N13.11 categories I, II, IIIA, IV, VB, VI, VII, VIII.

NVLAP LAB CODE 100506-0**Southern California Edison**

San Onofre Nuclear Generating Station
5000 Pacific Coast Highway, P.O. Box 128
San Clemente, CA 92674-0128
Contact: Mr. Richard V. Warnock
Phone: 949-368-6784
Fax: 949-368-6049
E-Mail: warnocrv@songs.sce.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS-N13.11-1993 through testing.

Panasonic TLD model UD802-AS2 in an ISA model 821 holder for ANSI-N13.11 categories I, II, IIIB, IV, VC, VI, VII.

NVLAP LAB CODE 100510-0
AmerGen

Three Mile Island, Route 441 South
P.O. Box 480
Middletown, PA 17057-0480
Contact: Mr. J. W. Schmidt
Phone: 717-948-8744
Fax: 717-948-8549
E-Mail: jschmidt@gpu.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing a Panasonic automatic reader model UD-710A.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802-AS2 in an ISA model 830 hanger for ANSI-N13.11 categories I, II, IIIA, IV, VC, VI, VII.

Panasonic TLD model UD802-AS2N in an ISA model 830 hanger with Cd over elements 1 and 2, Pb filtration oven element 4 for ANSI-N13.11 category VIII.

NVLAP LAB CODE 100512-0
Radiation Detection Company

162 N. Wolfe Road
P.O. Box 3414
Sunnyvale, CA 94088-3414
Contact: Mr. Richard H. Holden
Phone: 408-735-8700
Fax: 408-735-0126
E-Mail: BaLaing@aol.com
URL: <http://www.radetco.com>

Ionizing Radiation Dosimetry

Accreditation Valid Through: December 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing (1) Teledyne 7300 and 310 reader; (2) Harshaw 3000A and 3500 reader; (3) Victoreen 2800 reader; (4) by manual film processing and reading on a Macbeth TD932 densitometer; (5) Tractech; (6) NE Autoscan 60 system and Ziess microscope, and (7) Harshaw 6600 and 8800 TLD readers.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

DESIGNATION	PROCESS	ANSI-N13.11 CATEGORIES
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Hi Energy Photons TLD-100 powder (Type 06 & 09)	1*	II, IV
Lo Energy Photons TLD-100, 600, 700 chips (Type 6 & 22)	1*	I, IIIB, VI
TLD Albedo (Type 22)	2 or 3,4	VIII
Film XBG (Type 01)	4	I, II, IIIA, IIIB, IV, VA, VI, VII
Neutron Tractech CR-39 (Type 23)	5	VIII
Neutron Tractech PN-3 (Type 23)	6	VIII
Beta/gamma Albedo TLD (Type 23)	2,3	II, IV, VA, VII
TLD-Beta/gamma- TLD 100 powder & chips (Type 30)	1,2 or 3	I, IIIA, IIIB, VA, VB, VI
TLD-Beta/gamma- TLD 100 powder & chips (Type 9)	1,2	VA, VII

* Processes listed above, 2 and 3, are considered functionally acceptable as substitutes which can be used in lieu of process 1 as listed above.

Extremity Finger Ring Type 05 Harshaw TLD-100 dosimeter using process (7) Harshaw 6600 and 8800 readers for ANSI HPS N13.32-1995 and NIST Handbook 150-4, table 2 categories II, IVA, VA.

NVLAP LAB CODE 100514-0
Ginna Nuclear Station

1503 Lake Road
Ontario, NY 14519-9742
Contact: Mr. William H. Thomson
Phone: 716-771-3219
Fax: 716-771-3905
E-Mail: bill_thomson@RGE.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the TLD radiation dosimeters listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS-N13.11-1993 through testing.

Panasonic TLD model UD802-AS in an ISA Model 821 hanger for ANSI-N13.11 categories I, II, IIIB, IV, VA, VI, VII.

Panasonic TLD model UD812A-5 in a Panasonic UD874A-T hanger for ANSI-N13.11 categories I, II, IV, V, VII.

Combination Panasonic TLD model UD812A-5 and UD809-AS in a Panasonic UD884A-T holder with cd shields for ANSI-N13.11 category VIII.

Rados Electronic Dosimeter RAD-51R with a Rados ADR 1000 and 2000 reader for HPS ANSI-N13.32-1995 categories II, IIIB, IV and VI.

NVLAP LAB CODE 100515-0**Eberline Dosimetry Service**

7021 Pan American Highway NE
Albuquerque, NM 87109
Contact: Mr. Ernest A. Sanchez
Phone: 505-345-3461
Fax: 505-761-5410
E-Mail: nutech@flash.net

Ionizing Radiation Dosimetry

Accreditation Valid Through: June 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing a Eberline manual reader TLR-6.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 and ANSI HPS N13.11-1995 through testing.

Eberline TLD-100 (2 or 3 TLD chips) for ANSI-N13.11 categories I, II, IIIA, IIIB, IV, VA, VI, VII, VIII.

Eberline Albedo TLD-100 for ANSI-N13.11 category VIII.

Eberline TLD-100 extremity dosimeter in an elastic ring holder for ANSI HPS N13.32 and NIST Handbook 150-4, table 2 categories I, II, IIIA, IV, VA.

NVLAP LAB CODE 100516-0**Tennessee Valley Authority External Dosimetry Service**

Sequoyah Access Road, P.O. Box 2000
Soddy-Daisy, TN 37379-2000
Contact: Mr. Mark A. Palmer
Phone: 423-843-8857
Fax: 423-843-7133
E-Mail: MAPALMER@TVA.GOV

Ionizing Radiation Dosimetry

Accreditation Valid Through: March 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802-AS in a Panasonic UD874AT holder for ANSI HPS N13.11 categories I, II, IIIA, IV, VC, VI, VII, VIII.

NVLAP LAB CODE 100517-0**Carolina Power & Light Company, Harris Energy & Enviro. Center**

3932 New Hill-Holleman Road
P.O. Box 327
New Hill, NC 27562-0327
Contact: Mr. A. G. Cheatham
Phone: 919-362-3215
Fax: 919-362-3354
E-Mail: gooch.cheatham@cplc.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the TLD radiation dosimeters listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS-N13.11-1993 and ANSI HPS-N13.32-1995 through testing.

Panasonic TLD model UD802 in a Panasonic closed type UD-874 ATM1 holder for ANSI HPS-N13.11 categories I, II, IIIA, IV, VC, VI, VII, VIII.

Panasonic extremity TLD model UD-807 in a plastic ring holder for ANSI HPS-13.32 (NIST Handbook 150-4, table 2) category IVA.

Based on equivalency, the Panasonic TLD model UD802

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

in a wrist holder for ANSI HPS-13.32 (NIST Handbook 150-4, table 2) categories I, II, IIIA, IV, VC, VI, VII.	CR-39 and Cadmium	1,3,4	I-VIII
Merlin Gerin DMC-100 Electronic Dosimeter (ED) with LDM-101 reader for ANSI HPS N13.11 category IV.	J - G badge plus polycarbonate and Cadmium	1,3,4	I-VIII
Based on equivalency, the DMC-100 Electronic Personal Dosimeter (EPD) in a wrist holder for ANSI HPS-13.32 (NIST Handbook 150-4, table 2) category IV.	Y - G badge plus Cadmium	1,3,4	I-VII
	Q - DEX-RAY	1,3,4	I-VII
	TLD		

NVLAP LAB CODE 100518-0

Landauer, Inc.

2 Science Road
Glenwood, IL 60425-1586
Contact: Dr. R. Craig Yoder
Phone: 708-755-7000
Fax: 708-755-7011
E-Mail: cyoder@landauerinc.com
URL: http://www.landauerinc.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: December 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing (1) Landauer (Kanars Data) automatic film reader; (2) Harshaw 2000 B/D Laser reader; (3) CR-39 manual optical readers; (4) manual densitometers X-Rite, Tech/Ops Model 301, Macbeth Model TD504, TD931, TD904 or (5) ALNOR Dosacus reader; (6) Landauer Custom Automated and Manual Delayed Optically Stimulated Luminescence (DOSL) Luxel reader and (7) Pulsed Optically Stimulated Luminescence (POSL).

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Landauer designation:

DOSIMETER	PROCESS	ANSI N13.11 CATEGORY
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Based On Testing
Based On Tech. Equiv.

FILM

G - Film "GARDRAY"(A)	1,4	I-VII	
R - G badge plus ER(G)	1,2,3,4	VIII	I-VII
R - G badge plus ALNOR ER(M)	1,3,4,5	VIII	I-VII
B - G badge plus CR 39(L)	1,3,4	VIII	I-VII
C - G badge plus			

K - ALNOR (TLD 100 chips)(K)(H)	5	I-VII	
W - modified - 2 chip Escort with x-ray filtration (J)	2	I, II	
Z - K badge (TLD 700 chips) plus Neutron Track Etch CR39(T)(I)	3,5	VIII	I-VII
F - L badge plus CR-39	1,3		I-VIII
F - L badge plus ER	1,2,3		I-VIII
L - 4 chip Alnor TLD	5		I-VII
M - K badge (TLD 700 chips)	5		I-VII
S - K badge (TLD 700 chips) plus ER	3,5		I-VIII
Z - K badge (TLD 700 chips) plus polycarbonate	3,5		I-VIII

DOSL

H-Luxel type H	6	I-VII	VIII
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POSL

J-Luxel (003/POSL)	7	VIII	
P-Luxel (003/POSL)	7	I, II, IIIA, IV VC, VI, VII	

The following sites are included to perform limited volume, emergency response processing employing either a Harshaw 3000 manual reader or manual film processing techniques for the following badges:

DOSIMETER	ANSI N13.11 CATEGORY
G - Film "GARDRAY"	I through VII
L - TLD 4 chip "ALNOR"	I through VII
K - TLD 3 chip "ALNOR"	I through VII

Landauer, Inc. Company Offices: El Segundo, California;

Houston, Texas; and East Brunswick, New Jersey.

This facility has been accredited to process the extremity dosimeters listed below, by virtue of actual demonstration of compliance with ANSI-N13.32-1995 and NIST Handbook 150-4, Pg. 14, Table 2, through employing the following readers/process: (1) Landauer Custom Automated, (2) Kanars Data Custom Automated (film), (3) Alnor Dosacus Automatic Reader, (4) Harshaw 2000B/D, 3000, 4000 manual, (5) Macbeth TD504, TD904, TD931 manual, and (6) Landauer Custom Luxel reader (7) Pulsed Optically Stimulated Luminescence (POSL).

DOSIMETER	PROCESS	ANSI N13.11 CATEGORY	
		Based On Testing	Based On Tech. Equiv.
TLD			
U - Ring (B) (Finger)	I,4	I, II, IIIA, IV, VA, VB, VD, VI, VII	
K - Modified K (H) (Wrist)	3,4	IIIA and VI	I, II, IV, VA, VB, VD, VII
FILM			
G - Gardray (A) (Wrist)	2,5	IIIA and VI	I, II, IV, VA, VB, VD, VII
DOSL			
H-Luxel type H (Wrist)	6	IIIA and VI	I, II, IV, VA, VB, VII
POSL			
P-Luxel (003/POSL)	7	IIIA and VI	I, II, IV, VA, VB, VII

NVLAP LAB CODE 100519-0
South Texas Project Dosimetry Laboratory

P.O. Box 289
Wadsworth, TX 77483
Contact: Mr. G. T. Powell
Phone: 361-972-7566
Fax: 361-972-7757
E-Mail: gtpowell@stpegs.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS-N13.11-1993 through testing.

Panasonic TLD Model UD802-AT in an ISA Model 830 holder for ANSI-N13.11 categories II, IV, VC, VI, VII.

Panasonic TLD Model UD802-AT in an ISA Model 810 holder for ANSI-N13.11 category VIII.

Panasonic TLD Model UD802/Neutron Pack in a Model ISA 830/ISA 810 holder for ANSI-N13.11 category VIII.

NVLAP LAB CODE 100521-0
Duquesne Light Company, Beaver Valley Power Station

Mail Drop BV-ERF
P.O. Box 4
Shippingport, PA 15077-0004
Contact: Mr. John T. Lebda
Phone: 412-393-5872
Fax: 412-393-5621
E-Mail: John_T_Lebda@dlc.dqc.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD812-AS2 for ANSI HPS N13.11 categories I, II, IIIA, IIIB, IV, VA, VB, VC, VI, VII.

The dosimeter is housed in a custom made plastic clam shell type holder with filtering of 4mg/cm² mylar over

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

elements 1 & 2, 140 mg/cm² plastic over element 3, and
840 mg/cm² plastic over element 4.

Rados Electronic Dosimeter RAD-51R for ANSI HPS
N13.11 categories IIIB, IV and VI.

NVLAP LAB CODE 100524-0**Duke Engineering and Services Environmental
Laboratory**

400 Donald Lynch Boulevard
Marlborough, MA 01752-4713
Contact: Mr. Edward F. Maher, Sc.D
Phone: 978-568-2522
Fax: 978-568-2520
E-Mail: EHMaher@dukeengineering.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to
process the radiation dosimeters listed below through
employing a Panasonic automatic reader model 710A and a
Rialto XT extremity dosimeter reader.

This facility is accredited to process the following
dosimeters by virtue of actual demonstration of compliance
with ANSI HPS N13.11-1993 and ANSI HPS
N13.32-1995 through testing.

Panasonic TLD model 808 in a ISA model 830U holder for
ANSI-N13.11 categories I, II, IIIA, IIIB, IV, VA, VB, VC,
VI, VII.

Panasonic TLD model 814-AS4 for ANSI-N13.11
categories I, II, IIIA, IIIB, IV, VA, VB, VC, VI, VII.

Panasonic TLD models UD808/UD814 combined for
category VIII.

Bicron-NE extremity TLD mode 869/A/2B in a ring tape
holder for HPS ANSI I3.32 (NIST Handbook 150-4, table
2) categories IVA, IVB, VA, VB and VD.

NVLAP LAB CODE 100528-0**TU Electric-Comanche Peak Steam Electric
Station**

5 miles North of Glen Rose on Hwy. 56 N
P.O. Box 1002
Glen Rose, TX 76043
Contact: Mr. John R. Curtis
Phone: 254-897-5332
Fax: 254-897-0972
E-Mail: jcurtis1@tuelectric.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: June 30, 2000

This facility has been evaluated and deemed competent to
process the radiation dosimeter listed below through
employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following
dosimeter by virtue of actual demonstration of compliance
with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802-AT in an ISA 810 holder
with Mylar-window for ANSI-N13.11 categories IIIB, IV,
VB, VI, VII, VIII.

NVLAP LAB CODE 100529-0**Detroit Edison, Fermi 2 Dosimetry Laboratory**

6400 North Dixie Highway, 100 AIB
Newport, MI 48166
Contact: Mr. Ronald Gillmore
Phone: 734-586-1388
Fax: 734-586-1041
E-Mail: gillmorer@deenergy.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to
process the radiation dosimeter listed below through
employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following
dosimeter by virtue of actual demonstration of compliance
with ANSI HPS-N13.11-1993 through testing.

Panasonic TLD model UD802-AS in an ISA-820 holder
for ANSI-N13.11 categories I, II, IIIA, IV, VC, VI, VII,
VIII.

NVLAP LAB CODE 100535-0**Entergy Operations, Inc.**

Waterford 3, Hwy. 18, River Road
Taft, LA 70066
Contact: Mr. Ronald C. McLendon
Phone: 504-464-3199
Fax: 504-464-3151
E-Mail: rcmlend@entergy.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: December 31, 2000

This facility has been evaluated and deemed competent to
process the radiation dosimeter listed below through
employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following
dosimeter by virtue of actual demonstration of compliance

with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802-AS in a Panasonic 874A holder for ANSI-N13.11 categories I, II, IIIA, IV, VC, VI, VII, VIII.

NVLAP LAB CODE 100536-0**Arizona Public Service Co., Palo Verde Nuclear Generating Station**

5801 S. Wintersburg Road, Station 6107
Tonopah, AZ 85354-7529
Contact: Mr. Michael W. Lantz
Phone: 623-393-5200
Fax: 623-393-2624
E-Mail: mlantz@apsc.com
URL: <http://www.apsc.com/dosim.asp>

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the TLD radiation dosimeters listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD812-AS5 in an ISA holder with an open window over element 1 for ANSI-N13.11 categories I, II, IIIB, IV, VC, VI, VII.

Panasonic TLD combination UD809/UD812-AS in a Panasonic UD885A-T holder for ANSI-N13.11 category VIII.

Panasonic TLD model UD812-AS5 in a single use holder for ANSI-N13.11 categories I, II, IIIB, IV, VC, VI, VII.

Panasonic TLD model UD809AS/UD812 combination in a single use holder for ANSI-N13.11 categories VIII.

Merlin Gerlin DMC-100 Electronic Personnel Dosimeter for ANSI-N13.11 categories IIIB, IV, VI.

NVLAP LAB CODE 100537-0**Pacific Gas & Electric Company, Diablo Canyon Nuclear Power Plant**

P.O. Box 56
Avila Beach, CA 93424
Contact: Mr. Mark O. Somerville
Phone: 805-545-4007
Fax: 805-545-6645
E-Mail: mos3@pge.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802-AS in a Panasonic UD875AT holder for ANSI-N13.11 categories II, IIIA, IV, VA, VI, VII, VIII.

Combination Panasonic TLD model UD813-AS8 in a Panasonic UD885AT holder for ANSI-N13.11 category VIII.

NVLAP LAB CODE 100538-0**Con Edison, Indian Point**

Broadway and Bleakley Avenue
Buchanan, NY 10511-1099
Contact: Mr. Richard J. Martucci
Phone: 914-271-7118
Fax: 914-734-5734
E-Mail: martuccir@coned.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: June 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI-HPS N13.11-1993 through testing.

Panasonic TLD model UD802-AT in an 874 AT holder for ANSI-N13.11 categories I, II, IIIB, IV, VC, VI, VII, VIII.

NVLAP LAB CODE 100539-0**U.S. Army Radiation Standards & Dosimetry Laboratory**

Attn: AMSAM-TMD-SR-D, Bldg. 5417
Redstone Arsenal, AL 35898-5000
Contact: Mr. Patrick Kuykendall
Phone: 256-876-3340
Fax: 256-955-6413
E-Mail: pkuyken@redstone.army.mil

Ionizing Radiation Dosimetry

Accreditation Valid Through: December 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic Model 710 reader.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic Model UD802AS in a Panasonic UD-874A-T holder for ANSI-N13.11 categories I, II, IIIA, IIIB, IV, VA, VB, VC, VI, VII, VIII.

NVLAP LAB CODE 100540-0**Northeast Utilities Dosimetry Laboratory**

3333 Berlin Turnpike
Newington, CT 06111
Contact: Mr. Robert J. Decensi
Phone: 860-444-5454
Fax: 860-444-5640
E-Mail: decenrj@nu.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: December 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Harshaw model 8800 TLD workstation.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Harshaw TLD card model 8801N (3 TLD 700, 1 TLD 600 chips) in a Harshaw Model 8810 holder for ANSI-N13.11 categories I, II, IIIB, IV, VB, VI, VII, and VIII.

NVLAP LAB CODE 100541-0**ComEd - TLD Processing Laboratory**

PTC TLD Lab, Room 173
36400 South Essex Road
Wilmington, IL 60481
Contact: Mr. Frank Rescek
Phone: 630-663-3850
Fax: 630-663-3855
E-Mail: Frank.Rescek@USCM.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: December 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802AS in a UD874-T hanger for ANSI-N13.11 categories I, II, IIIA, IV, VC, VI, VII, VIII.

NVLAP LAB CODE 100544-0**Florida Power & Light Company**

700 Universe Blvd.
P.O. Box 14000
Juno Beach, FL 33408-0420
Contact: Mr. Joseph Danek
Phone: 561-694-4213
Fax: 561-694-3706
E-Mail: joe_danek@email.fpl.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: June 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic automatic reader model UD716.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI-N13.11-1993 through testing.

Panasonic TLD model UD802-AT or AS in a ISA 820 holder for ANSI-N13.11 categories I, II, IIIB, IV, VC, VI, VII, VIII.

NVLAP LAB CODE 100548-0**US Air Force Center for Radiation Dosimetry**

2402 E. Drive
Brooks AFB, TX 78235-5114
Contact: Dr. David N. Erwin
Phone: 210-536-2003
Fax: 210-536-2025
E-Mail: David.Erwin@Guardian.Brooks.AF.MIL
URL: <http://www.brooks.af.mil/AL/OE/OEBD/oebd.htm>

Ionizing Radiation Dosimetry

Accreditation Valid Through: March 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing the Panasonic automatic readers model UD716AGL and UD-7900. Also, the Harshaw 6600 Automatic TLD Reader for the Ext-Rad extremity dosimeter.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802AT in model 820-C hanger for ANSI-N13.11 categories I, II, IIIA, IV, VC, VI, VII, VIII.

Panasonic TLD model UD802AT in ISA model 822 neutron hanger for ANSI-N13.11 categories IV, VIII.

Harshaw Ext-Rad extremity TLD-100 chip in a finger ring

strap for ANSI HPS N-13.32-1995 (NIST Handbook 150-4, table 2) categories IV, VA, and VII.

NVLAP LAB CODE 100551-0

Georgia Power Company/Enviro. Affairs, Enviro. Lab-Dosimetry

5131 Maner Road
Smyrna, GA 30080-7321
Contact: Mr. Michael C. Nichols
Phone: 404-799-2112
Fax: 404-799-2141
E-Mail: mcnichol@southernco.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: March 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing Panasonic automatic readers model UD-710A and UD-717.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 and ANSI HPS N13.32 through testing.

Panasonic TLD model UD802-AS in a Panasonic 854A or UD-874ATM1 (closed) hanger for ANSI HPS N13.11 categories II, IIIB, IV, VC, VI, VII, VIII.

Panasonic extremity TLD model UD-817 in an elastic ring holder for ANSI HPS N13.32-1995 (NIST Handbook 150-4, table 2) categories II, IV and VII.

NVLAP LAB CODE 100554-0

PP&L, Inc.

Two North Ninth Street
Allentown, PA 18101-1179
Contact: Mr. Stephen L. Ingram
Phone: 610-774-5412
Fax: 610-774-7205
E-Mail: slingram@papl.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: March 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802-AS in a Panasonic UD874-AT1 or UD874-ATM1 hanger for ANSI-N13.11 categories I, II, IIIB, IV, VC, VI, VII, VIII.

NVLAP LAB CODE 100555-0

ICN Worldwide Dosimetry Service, Div. of ICN Biomedicals, Inc.

3300 Hyland Ave., ICN Plaza
Costa Mesa, CA 92626
Contact: Ms. Sandra Nemecek
Phone: 714-545-0100 x2297
Fax: 714-668-3149
E-Mail: smnemecek@icnpharm.com
URL: http://www.dosimetry.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: June 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing the TLD automatic readers: Panasonic model UD710A, SLD STI model 8800, and Harshaw model 6600. In addition, the TLD manual readers: Panasonic model UD702 and Harshaw models 5500 and 3500. The MacBeth TD932 densitometer, and a custom automatic developer and densitometer for film processing.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model ICN UD-802 with a model UD-854 or UD-874 hanger for ANSI-N13.11 categories I, II, IIIA, IV, VC, VI, VII, VIII.

ICN Film Badge (Kodak Type 4) for ANSI-N13.11 categories I, II, IIIA, IV, VA, VI, VII.

ICN Film Badge (Kodak Type 4 with CR39) for ANSI-N13.11 category VIII.

Panasonic TLD model UD-802 with CR39 in a model UD-874 hanger for ANSI-N13.11 category VIII.

ICN Remtrack (Harshaw) TLD model 100 enclosed in a laminated polyethylene material holder for ANSI N13.11 category II and IV.

HLD-100 for ANSI-N13.11 categories I, II, IIIA, IV, VA, VI, VII.

HLD-760 for ANSI-N13.11 categories I, II, IIIA, IV, VC, VI, VII, VIII.

HLD-760 plus CR39 for ANSI-N13.11 category VIII based on equivalence

This facility has been accredited to process the extremity dosimeters listed below by virtue of actual demonstration of compliance with ANSI-N13.32-1995 and NIST

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

Handbook 150-4, Page 14, Table 2 categories.

Panasonic extremity TLD UD-807 in flex ring holder,
based on testing for categories IVA, VA, and VB.

HLD-100 (Wrist), based on technical equivalence, for
categories I, II, IIIA, IIIB, IV, VA, VI, VII.

HLD-760 (Wrist), based on technical equivalence, for
categories I, II, IIIA, IIIB, IV, VA, VI, VII.

HLD-100 (Ring), based on testing, for categories I, II, IIIA,
IV, VA, VB, VD, VI, and VII.

HLD-100 1C (Ring), based on technical equivalence, for
categories I, II, IIIA, IV, VA, VB, VD.

NVLAP LAB CODE 100556-0**Atomic Energy Industrial Laboratory of the
Southwest, Inc.**

9261 Kirby Drive
Houston, TX 77054-2514
Contact: Mr. Steven H. Allen
Phone: 713-790-9719
Fax: 713-790-0542
E-Mail: shallen@aeil.com
URL: <http://www.aeil.com>

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to
process the radiation dosimeters listed below through
employing film processing using a computerized custom
densitometer.

This facility is accredited to process the following
dosimeters by virtue of actual demonstration of compliance
with ANSI HPS N13.11-1993 through testing.

Film Badge B-4 (Kodak Type 2) for ANSI-N13.11
categories I, II, IIIA, IV, VC, VI, VII.

Film Badge N-5 (Kodak Type 2 and A) for ANSI-N13.11
category VIII.

NVLAP LAB CODE 100559-0**Troxler Radiation Monitoring Svc. a div. of
Troxler Elect. Labs**

3008 Cornwallis Road
P.O. Box 12057
Research Triangle Park, NC 27709
Contact: Mr. Stephen A. Browne
Phone: 919-549-8661
Fax: 919-549-0761
E-Mail: troxrso@troxlerlabs.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: June 30, 2000

This facility has been evaluated and deemed competent to
process the radiation dosimeter listed below through
employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following
dosimeter by virtue of actual demonstration of compliance
with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802 with model UD854 hanger
for ANSI-N13.11 category I, II, IIIA, IV, VC, VI, VII,
VIII.

NVLAP LAB CODE 100560-0**Electric Boat Corp/A General Dynamics Co.
Radiological Ctrl. Dept**

75 Eastern Point Road
Groton, CT 06340-4909
Contact: Mr. Robert D. Renza
Phone: 860-433-3674
Fax: 860-433-0946
E-Mail: rrenza@ebmail.gdeb.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: March 31, 2000

This facility has been evaluated and deemed competent to
process the radiation dosimeter listed below through
employing a Harshaw manual reader model 4000.

This facility is accredited to process the following
dosimeter by virtue of actual demonstration of compliance
with ANSI HPS N13.11-1993 through testing.

A Harshaw TLD model 4040, CaF₂ Bulb Dosimeter in a
model 4039 holder for ANSI HPS N13.11 Category IV.

NVLAP LAB CODE 100561-0

Newport News Shipbuilding Radiological Control Department

4101 Washington Avenue
Newport News, VA 23607-2770
Contact: Mrs. C. W. Amos
Phone: 757-380-32439
Fax: 757-380-3778
E-Mail: amos_cw@nns.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: March 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Harshaw automatic reader model 8800.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Harshaw TLD model 2276-L, BG (2 TLD 700, 1 TLD 600) in a Type 80 Harshaw cardholder for ANSI HPS N13.11 category IV.

NVLAP LAB CODE 100562-0

Radiation Laboratory, Taiwan Power Company

P.O. Box 7
Shihmen, Taipei 25302
TAIWAN
Contact: Mr. W. W. Yeh
Phone: +886-2-2638-1397
Fax: +886-2-2638-2446
E-Mail: u706667@taipower.com.tw

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD802AS in a UD-874A holder for ANSI-N13.11 categories I, II, IIIA, IV, VA, VI, VII, VIII.

NVLAP LAB CODE 100565-0

Naval Nuclear Propulsion Program Directorate, Washington, DC

Puget Sound Naval Shipyard, Rad. Hlth
Division, Code 105.5, 1400 Farragut Ave
Bremerton, WA 98314-5001
Contact: Mr. R. K. Alspach
Phone: 360-476-3596
Fax: 360-476-4383

Ionizing Radiation Dosimetry

Accreditation Valid Through: March 31, 2000

The facility listed has been evaluated as a representative site and deemed competent to process the radiation dosimeter listed below through employing a Radiac Computer-Indicator Model No. CP-1112/PD TLD reader.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing:

CaF Bulb Dosimeter (DT-526/PD) for ANSI-N13.11 categories II, IV.

The accreditation is also extended to include processing performed by other facilities in the Naval Nuclear Propulsion Program which use identical equipment and procedures as listed above.

NVLAP LAB CODE 100570-0

Clinton Power Station

6 mi. East of Clinton, Route 54 East
P.O. Box 678
Clinton, IL 61727-0678
Contact: Ms. Mary J. Lewis
Phone: 217-935-8881 x3718
Fax: 217-935-4934
E-Mail: mary_lewis@illinova.com

Ionizing Radiation Dosimetry

Accreditation Valid Through: December 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing a Panasonic Model UD716AGL automatic reader.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Panasonic TLD model UD-802-AT in a ISA model 820 holder for ANSI-N13.11 categories I, II, IIIA, IIIB, IV, VA, VB, VI, VII, VIII.

NVLAP LAB CODE 100571-0**United States Dosimetry Technology, Inc.**

660-A George Washington Way
Richland, WA 99352-4246
Contact: Mr. M. K. Winegardner
Phone: 509-946-8738
Fax: 509-943-2710
E-Mail: mk_wine@compuserve.com
URL: <http://www.usdt.com>

Ionizing Radiation Dosimetry

Accreditation Valid Through: December 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing a USDT TLD Card Reader and a USDT film densitometer.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

USDT TLD F (TLD-700 and 600) for ANSI-N13.11 categories I, II, IIIA, IV, VA, VI, VII, VIII.

USDT T-3 Kodak type 2 film for ANSI-13.11 categories I, II, IIIA, IV, VA, VI, VII.

NVLAP LAB CODE 100573-0**Proxtronic, Inc.**

5795-B Burke Centre Parkway
P.O. Box 12150
Burke, VA 22015
Contact: Mr. W. Guy Davis
Phone: 703-425-4811
Fax: 703-503-2856
E-Mail: sales@Proxtronic.com
URL: <http://www.proxtronic.com>

Ionizing Radiation Dosimetry

Accreditation Valid Through: June 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing film processing using a Victoreen 07-440 densitometer and TLD processing using a Panasonic UD710A and UD717.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 through testing.

Film Badge (Kodak Type II) for ANSI N13.11 categories IIIA, IV and VC.

Panasonic TLD model UD802-AS2 in an ISA 831 or UD875-ATM1 hanger for ANSI N13.11 categories I, II, IIIA, IV, VC, VI, VII, VIII.

Panasonic TLD model UD802-AS2 in a Panasonic 854 hanger for ANSI N13.11 categories IIIA, IV.

Panasonic TLD model UD-817 in a Wallet Card Holder for ANSI N13.11 categories II and IV.

NVLAP LAB CODE 101004-0**Labcorp Analytics Laboratory**

8040 Villa Park Drive
Richmond, VA 23228
Contact: Mr. James A. Calpin, CIH
Phone: 804-264-7100
Fax: 804-264-8873

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101006-0**Advanced Industrial Hygiene Services, Inc.**

2131 S.W. 2 Ave.
Miami, FL 33129-1411
Contact: Mr. Bruce Marchette
Phone: 305-854-7554
Fax: 305-285-0677
E-Mail: AIHS1@AOL.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101012-0**Dixon Information Inc.**

78 West 2400 South
South Salt Lake, UT 84115-3013
Contact: Mr. Willard C. Dixon
Phone: 801-486-0800
Fax: 801-486-0849

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101014-0

Aires Consulting Group, Inc.

1550 Hubbard
Batavia, IL 60510
Contact: Ms. Cynthia Darling
Phone: 630-879-3006
Fax: 630-879-3014
E-Mail: cindydarling@airesconsulting.com
URL: airesconsulting.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101019-0

EA Group

7118 Industrial Park Blvd.
Mentor, OH 44060-5314
Contact: Mr. Carl R. Eggebraaten
Phone: 440-951-3514
Fax: 440-951-3774

URL: <http://www.eagroup-ohio.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101031-0

Fiberquant, Inc.

5025 S. 33rd St.
Phoenix, AZ 85040
Contact: Mr. Larry S. Pierce
Phone: 602-276-6139
Fax: 602-276-4558
E-Mail: FIBERQUANT@ABILNET.COM
URL: <http://www.fiberq.com/labs/fq.htm>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101032-0

Batta Laboratories, Inc.

Delaware Industrial Park
6 Garfield Way
Newark, DE 19713-5817
Contact: Mr. Naresh C. Batta
Phone: 302-737-3376
Fax: 302-737-5764
E-Mail: battaenv@battaenv.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101037-0

Microscopic Analysis, Inc.

11760 Westline Industrial Drive
St. Louis, MO 63146-3402
Contact: Mr. Douglas N. Nimmo
Phone: 314-993-2212
Fax: 314-993-3193

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101039-0

Carnow, Conibear & Associates Ltd.

333 W. Wacker Drive, Suite 1400
Chicago, IL 60606-1226
Contact: Mr. David Kedrowski
Phone: 312-782-4486
Fax: 312-782-5145

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101045-0**Hub Testing Laboratory, Inc.**

95 Beaver Street
Waltham, MA 02453-8423
Contact: Mr. Frederick T. Boyle
Phone: 800-878-8938
Fax: 781-893-4414
E-Mail: ftboyle@hubtest.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101048-0**EMSL Analytical, Inc.**

107 Haddon Avenue
Westmont, NJ 08108-2799
Contact: Mr. Stephen Siegel, CIH
Phone: 609-858-4800
Fax: 609-858-4960

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101048-1**EMSL Analytical, Inc.**

1770 The Exchange SE, Suite 135
Atlanta, GA 30339
Contact: Richard White
Phone: 770-956-9150
Fax: 770-956-9181

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101048-2**EMSL Analytical, Inc.**

1056 Stelton Rd.
Piscataway, NJ 08854
Contact: Adrian Arav
Phone: 908-981-0550
Fax: 908-981-0551

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101048-3**EMSL Analytical, Inc.**

382 South Abbott Avenue
Milpitas, CA 95035
Contact: Nonnette Patron
Phone: 408-934-7010
Fax: 408-934-7015

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101048-4**EMSL Analytical, Inc.**

212 S. Wagner Road
Ann Arbor, MI 48103
Contact: Hildegard Hohnke
Phone: 734-668-6810
Fax: 734-668-8532

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101048-9**EMSL Analytical, Inc.**

350 Fifth Avenue, 15th Floor
Suite 1504-1506
New York, NY 10118
Contact: Jose Arriaga
Phone: 212-290-0051
Fax: 212-290-0058

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101048-10**EMSL Analytical, Inc.**

208 Stone Henge Road
Carle Place, NY 11514
Contact: Brian Riedener
Phone: 516-997-7251
Fax: 516-997-7528

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101051-0**Accredited Environmental Technologies, Inc.**

28 North Pennell Road
Media, PA 19063
Contact: Mr. Carl Josephson
Phone: 610-891-0114
Fax: 610-891-0559

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101058-0**Waste Management Federal Services of Hanford, Inc.**

Waste Sampling & Characterization Fac.
P.O. Box 700 MSIN: S3-30
Richland, WA 99352
Contact: Ms. Maureen K. Hamilton
Phone: 509-373-7167
Fax: 509-373-7133
E-Mail: maureen_k_hamilton@rl.gov

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101061-0**ChemScope, Inc.**

15 Moulthrop Street
North Haven, CT 06473-3686
Contact: Mr. Ronald D. Arena
Phone: 203-865-5605
Fax: 203-498-1610
E-Mail: chem.scope@snet.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101066-0**Law Engineering and Environmental Services, Inc.**

2100 Riverchase Center, Suite 450
Birmingham, AL 35244
Contact: Ms. Carol Payne
Phone: 205-733-7672
Fax: 205-985-2951
E-Mail: jfindlay@lawco.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101072-0**Bodycote Industrial Testing, Ltd.**

2350 South 7th Street
St. Louis, MO 63104-4296
Contact: Mr. Robert C.S. Archibald
Phone: 314-771-7111
Fax: 314-771-9573
E-Mail: Archibald.R@bodycote-mt.com

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Chemical Analysis

Energy dispersive X-ray analysis

FA/500 ASTM E1508

Optical emission spectrochemical analysis

FA/457 ASTM E415

Solution chemical analysis

FA/448 ASTM E350

FA/449 ASTM E352

FA/450 ASTM E353

FB/1141 ASTM E351

Mechanical and Physical Testing and Inspection

Adhesion of metallic coatings on fasteners

FA/143 ASTM B571

FA/541 QQ-P-416 Sec. 4.6.2

Axial tensile strength of full-size threaded fasteners

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

Bend test of full size eyebolts

FA/147 ASTM F541

Breaking strength of fullsize eyebolts

FA/275 ASTM A489

Brinell hardness of fasteners

FA/185 ASTM A370 Sec. 16

FA/186 ASTM E10

Charpy impact (u-notch) testing

FA/517 ASTM E23

Charpy impact (v-notch) testing

FA/211 ASTM A370 Sec. 19-28

FA/212 ASTM E23

Copper sulfate test - test for free iron on the surface of corrosion resistant fasteners

FA/499 ASTM A380

Double shear of externally threaded fasteners

FA/257 MIL-STD-1312-13

Elevated temperature testing capability

FA/546 ASTM E21

Humidity testing of fasteners

FA/548 ASTM D2247

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FB/1142 ASTM B839

Intergranular corrosion susceptibility in austenitic stainless steel fasteners - nitric aci

FA/173 ASTM A262 Sec. 15-21, Practice C

Intergranular corrosion susceptibility of austenitic stainless steel fasteners - oxalic acid

FA/174 ASTM A262 Sec. 3-7, Practice A

Magnetic permeability

FA/215 MIL-I-17214

Measurement of fastener coating thickness - magnetic methods

FA/153 ASTM B499

Measurement of fastener coating thickness - microscopical method

FA/160 ASTM B487

Measurement of fastener coating thickness - weight of coating

FA/164 ASTM A90

Microhardness of fasteners

FA/189 ASTM E384

Prevailing torque

FA/216 ANSI B18.16.1M

FA/217 IFI-100/107

Proof load of full-size externally threaded fasteners

FA/225 ASTM A370 Sec. A3.2.1.1-A3.2.1.3

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

Proof load of full-size eyebolts

FA/231 ASTM A489

Proof load of internally threaded fasteners (nuts)

FA/237 ASTM F606M Sec. 4.2

Reusability test of self-locking internally threaded fasteners

FA/542 ANSI B18.16.1M

FA/543 IFI-100/107

Rockwell hardness of fasteners

FA/196 ASTM A370 Sec. 18

FA/197 ASTM E18

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

FA/206 ASTM A370 Sec. 18

Salt spray testing of fasteners

FA/166 ASTM B117

Single shear of externally threaded fasteners

FA/256 MIL-STD-1312-20

Tension testing of machined specimens from externally threaded fasteners

FA/279 ASTM F606 Sec. 3.6

Test for embrittlement of metallic coated externally threaded fasteners

FB/1143 ASTM B839

Torque-out test

FA/544 IFI-101

Total extension at fracture of externally threaded fasteners

FA/285 ASTM F606 Sec. 3.7

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/492 ASTM E92

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4

Metallography

Decarburization and case depth measurement in fasteners

FA/323 ASTM E1077

FA/328 SAE J121

FA/330 SAE J423

FB/1144 ASTM F606

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/484 ASTM E381

Microscopic examination of fasteners by etching

FA/512 ASTM E407

Surface discontinuities of externally threaded fasteners

FA/361 SAE J123

Surface discontinuities of internally threaded fasteners

FA/365 SAE J122

Nondestructive Inspection

Liquid penetrant inspection of fasteners

FA/372 SAE J426

Magnetic particle inspection of fasteners

FA/378 SAE J420

NVLAP LAB CODE 101086-0

Analytica Solutions, Inc.

325 Interlocken Parkway, Suite 200

Broomfield, CO 80021

Contact: Ms. Jennifer Whalen

Phone: 303-469-8868 x123

Fax: 303-469-5254

E-Mail: Marketing@Analyticagroup.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101087-0

Environmental Monitoring & Consulting Associates

P.O. Box 872

Somerville, NJ 08876

Contact: Mr. Joel Russell

Phone: 732-249-3005

Fax: 732-249-3384

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101103-0

Chatfield Technical Consulting Limited

2071 Dickson Road

Mississauga Ontario L5B 1Y8

CANADA

Contact: Dr. Eric J. Chatfield

Phone: 905-896-7611

Fax: 905-896-1930

E-Mail: chatfiel@echo-on.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101106-0

Clayton Environmental Consultants

a division of Clayton Group Srvs., Inc.

4636 East Marginal Way South, Suite 215

Seattle, WA 98134-2331

Contact: Ms. Venetia Runnion

Phone: 206-763-7364

Fax: 206-763-4189

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101109-0

Wisconsin Occupational Health Laboratory

2601 Agriculture Drive

P.O. Box 7996

Madison, WI 53707-7996

Contact: Mr. Lyle Reichmann

Phone: 608-224-6221

Fax: 608-224-6213

E-Mail: lr@mail.slh.wisc.edu

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101111-0

City of Los Angeles Department of Water and Power

Department of Water and Power

PO Box 51111, 1630 N. Main St., Bldg. 7

Los Angeles, CA 90051-0100

Contact: Mr. Stanley M. Kung

Phone: 213-367-7270

Fax: 213-367-7285

E-Mail: stanley.kung@water.ladwp.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101125-0

Clayton Laboratory Services

3380 Chastain Meadows Pkwy., Suite 300

Kennesaw, GA 30144

Contact: Mr. Alan M. Segrave

Phone: 770-499-7500

Fax: 770-423-4990

E-Mail: ASEG007@AOL.COM

URL: http://www.claytongrp.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101130-0**TEM, Incorporated**

443 Duane Street
Glen Ellyn, IL 60137
Contact: Mr. James Tuinenga
Phone: 630-790-0880
Fax: 630-790-0882

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101135-0**McKee Environmental Health, Inc.**

303 Westfield Lane
Friendswood, TX 77546-6316
Contact: Mr. Ronald S. McKee
Phone: 281-482-3403
Fax: 281-482-7203
E-Mail: mehi@wt.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101136-0**American Medical Laboratories, Inc.**

14225 Newbrook Drive
P.O. Box 10841
Chantilly, VA 20153-0841
Contact: Mr. Christopher Kase
Phone: 703-802-6900
Fax: 703-802-7041
E-Mail: ckase@aml.com
URL: <http://www.aml.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101143-0**AMA Analytical Services, Inc.**

4475 Forbes Blvd.
Lanham, MD 20706
Contact: Mr. Andreas Saldivar
Phone: 301-459-2640
Fax: 301-459-2643
E-Mail: AMALAB@EROLS.COM
URL: <http://www.amalab.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101147-0**Hygienetics Laboratory Services**

98 North Washington Street
Boston, MA 02114
Contact: Mr. Bryan Clark
Phone: 617-589-0660
Fax: 617-742-4285
E-Mail: lab@hygienetics.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101150-0**Schneider Laboratories, Inc.**

2512 W. Cary Street
Richmond, VA 23220-5117
Contact: Mr. Raja F. Abouzaki
Phone: 804-353-6778
Fax: 804-353-6928
E-Mail: s_lab@ix.netcom.com
URL: <http://www.slabinc.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101151-0**EMSL Analytical, Inc.**

5125 Adanson Street, Suite 900
Orlando, FL 32804
Contact: Mr. Hal Jones
Phone: 407-599-5887
Fax: 407-599-9063

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101152-0**Law Engineering and Environmental Services, Inc.**

5500 Guhn Road
Houston, TX 77040-6126
Contact: Mr. Tony T. Dang
Phone: 713-939-7161
Fax: 713-462-7903
E-Mail: tdang@lawco.com
URL: <http://www.lawco.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101155-0

NATEC International, Inc.

7441 Anaconda Avenue
Garden Grove, CA 92841-2911
Contact: Mr. Vanc Thomas
Phone: 714-894-7577
Fax: 714-373-1768

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101162-0

EcoSystems Environmental, Inc.

1408A Vantage Street
Carrollton, TX 75006
Contact: Mr. Bakhtiar Dargali
Phone: 972-416-0520
Fax: 972-416-4512

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101165-0

International Asbestos Testing Laboratory

16000 Horizon Way, Unit 100
Mt. Laurel, NJ 08054
Contact: Mr. Frank E. Ehrenfeld, III
Phone: 609-231-9449
Fax: 609-231-9818

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101170-0

Gelles Laboratories, Division, CC Technologies

6141 Avery Road
Dublin, OH 43016
Contact: Dr. Stanley H. Gelles
Phone: 614-761-1214
Fax: 614-761-1633
E-Mail: sgelles@cctlabs.com
URL: <http://www.cctechnologies.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101185-0

SEAS, Inc.

3089 Pandapas Pond Road
P.O. Box 660
Blacksburg, VA 24063-0660
Contact: Mr. David L. Violette
Phone: 540-951-9283
Fax: 540-951-9282
E-Mail: seas@swva.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101187-0

ATC Associates Inc.

104 E. 25th Street 10th Floor
New York, NY 10010
Contact: Ms. Milena Lowd
Phone: 212-353-8280
Fax: 212-353-3599
E-Mail: Lowd15@ATC-ENVIRO.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101188-0

Tremco, Inc. - Roofing Division, An RPM Company

3735 Green Road
Beachwood, OH 44122
Contact: Mr. Greg Rudolph
Phone: 216-766-5644
Fax: 216-765-6737

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101192-0

Philip Environmental Services Corp.

210 West Sandbank Road
P.O. Box 230
Columbia, IL 62236-0230
Contact: Mr. Craig M. Brooks
Phone: 618-281-7173
Fax: 618-281-5120
E-Mail: cbrooks@philipinc.com
URL: <http://www.philipinc.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 101199-0

HYGENIX, INC.

49 Woodside Street
Stamford, CT 06902-2411
Contact: Mr. Arthur Morris
Phone: 203-324-2222
Fax: 203-324-9857

URL: <http://www.hygenix.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101202-0

STAT Analysis Corporation

2201 W. Campbell Park Dr.
Chicago, IL 60612-3501
Contact: Dr. Surendra N. Kumar
Phone: 312-733-0551
Fax: 312-733-2386

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101208-0

RJ Lee Group, Inc.

350 Hochberg Road
Monroeville, PA 15146-1516
Contact: Mr. Drew R. Van Orden
Phone: 724-325-1776
Fax: 724-733-1799
E-Mail: DREW@RJLG.COM
URL: <http://www.RJLG.COM>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101208-2

RJ Lee Group, Inc.

Bay Area Laboratory
530 McCormick Place
San Leandro, CA 94577
Contact: Kristen Lee Bunker
Phone: 510-567-0480
Fax: 510-567-0488

URL: <http://www.RJLG.COM>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101208-3

RJ Lee Group, Inc.

Manassas Laboratory
10503 Battleview Parkway
Manassas, VA 20109
Contact: Monica McCloy
Phone: 703-368-7880
Fax: 703-368-7761

URL: <http://www.RJLG.COM>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101216-0

CTL Environmental Services

24404 S. Vermont Avenue, Suite 307
Harbor City, CA 90710
Contact: Mr. Rich Brockbank
Phone: 310-530-5006
Fax: 310-530-0792
E-Mail: rbrockbank@ctles.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101218-0

EMS Laboratories, Inc.

117 West Bellevue Drive
Pasadena, CA 91105-2503
Contact: Ms. Bernadine M. Kolk
Phone: 626-568-4065
Fax: 626-796-5282
E-Mail: emslab2@aol.com
URL: <http://www.emslabs.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101221-0

Micro Air, Inc.

6320 La Pas Trail
Indianapolis, IN 46268-4104
Contact: Dr. Morris L.V. French
Phone: 317-293-1533
Fax: 317-290-3566
E-Mail: microair@microair.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101222-0

Enviro-Probe, Inc.

2917 Bruckner Boulevard
Bronx, NY 10461
Contact: Dr. Ved P. Kukreja
Phone: 718-863-0045
Fax: 718-518-7454

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101226-0

Law Engineering and Environmental Services, Inc.

2801 Yorkmont Road
P.O. Box 11297
Charlotte, NC 28220
Contact: Mr. Shawn A. Bethay
Phone: 704-357-8600
Fax: 704-357-8639

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101228-0

The Scott Lawson Group, Ltd.

29 River Road
P.O. Box 3304
Concord, NH 03302-0894
Contact: Ms. Jennifer Scott
Phone: 603-228-3610
Fax: 603-228-3871

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101232-0

ERI Consulting Engineers, Inc.

2024 Republic Drive
P.O. Box 2024
Tyler, TX 75701-2024
Contact: Ms. Kathy R. Schosek
Phone: 903-534-5001
Fax: 903-534-8701
E-Mail: kathy@ericonsulting.com
URL: <http://www.ericonsulting.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101233-0

HIH Laboratory, Inc.

100 East NASA Road One, Suite 210
P.O. Box 57727
Webster, TX 77598
Contact: Mr. Jerry W. Bright
Phone: 281-338-9000
Fax: 281-338-2351
E-Mail: jerry@hihlaboratory.com
URL: <http://www.hihlaboratory.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101234-0

Braun Intertec Corporation

6875 Washington Avenue South
P.O. Box 39108
Minneapolis, MN 55439-0108
Contact: Ms. Beth Regan
Phone: 612-942-4828
Fax: 612-942-4844
E-Mail: bregan@brauncorp.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101235-0

Materials Analytical Services, Inc.

3945 Lakefield Court
Suwanee, GA 30024
Contact: Dr. William E. Longo
Phone: 770-866-3200
Fax: 770-866-3259
E-Mail: blongo@mastest.com
URL: <http://www.mastest.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101237-0

State of Connecticut

Dept. of Public Health Laboratory
P.O. Box 1689
Hartford, CT 06144-1689
Contact: Dr. Sanders F. Hawkins
Phone: 860-509-8500
Fax: 860-509-8697

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101247-0

Micro Analytical, Inc.

11521 W. North Ave.
Milwaukee, WI 53226
Contact: Mr. Jon Yakish
Phone: 414-771-0855
Fax: 414-771-6570

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101249-0

Institute for Environmental Assessment

7101 Northland Circle
Brooklyn Park, MN 55428-1517
Contact: Ms. Yolanda Pope
Phone: 612-535-7721
Fax: 612-535-9177

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101254-0

Roy F. Weston, Inc.

1635 Pumphrey Avenue
Auburn, AL 36832-4303
Contact: Mr. Jamieson D. Webb
Phone: 334-826-6100
Fax: 334-826-8232

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101258-0

DCM Science Laboratory, Inc.

12421 W. 49th Ave., Unit 6
Wheat Ridge, CO 80033
Contact: Ms. Cindy Mefford
Phone: 303-463-8270
Fax: 303-463-8267
E-Mail: dcmscilab@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101261-0

Asbestos Analysis and Information Service, Inc.

603 North Baker Street
P.O. Box 837
Four Oaks, NC 27524
Contact: Mr. Stephen H. Westbrook
Phone: 919-963-2898
Fax: 919-963-2841
E-Mail: STEHWEST@AOL.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101262-0

Philip Analytical Services

4418 Pottsville Pike
Reading, PA 19605
Contact: Mr. Fred Usbeck
Phone: 610-921-8833
Fax: 610-921-9667
E-Mail: FRED_USBECK@PHILIP-SERV.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101265-0

Pace Analytical

7726 Moller Road
Indianapolis, IN 46268-4163
Contact: Mr. Tim Harrison
Phone: 317-875-5894 x116
Fax: 317-872-6189
E-Mail: tharriso@pacelabs.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101269-0

Volz Environmental Services, Inc.

1200 Gulf Lab Road
Pittsburgh, PA 15238-1304
Contact: Mr. George J. Skarupa
Phone: 412-826-8480
Fax: 412-826-8488
E-Mail: georgeskarupa@volzenvironmental.com
URL: <http://www.volzenvironmental.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101270-0

Pinchin Environmental Ltd.

5749 Coopers Ave.
Mississauga Ontario L4Z 1R9
CANADA
Contact: Ms. Wendy Bunner
Phone: 905-507-4850
Fax: 905-507-4884
E-Mail: wbunner@pinchin.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101282-0

Mystic Air Quality Consultants, Inc.

1204 North Road
Groton, CT 06340
Contact: Mr. Christopher J. Eident
Phone: 860-449-8903
Fax: 860-449-8860
E-Mail: MAQC2@AOL.COM
URL: <http://www.mysticair.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101288-0

University (State) Hygienic Laboratory

University of Iowa
102 Oakdale Campus, #H101 OH
Iowa City, IA 52242-5002
Contact: Dr. George Breuer
Phone: 319-335-4500
Fax: 319-335-4555
E-Mail: gbreuer@uhl.uiowa.edu
URL: <http://www.uhl.uiowa.edu>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101289-0

Omega Environmental Services

165 State Street
Hackensack, NJ 07601
Contact: Ms. Veronica Kero
Phone: 201-489-8700
Fax: 201-342-5412

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101292-0

Northern Analytical Laboratories, Inc.

602 South 25th Street
P.O. Box 30315
Billings, MT 59107
Contact: Ms. Kathleen A. Smit
Phone: 406-254-7226
Fax: 406-254-1389

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101301-0

PMK Group, Inc.

629 Springfield Road
Kenilworth, NJ 07033
Contact: Mr. Stanley Lewandowski
Phone: 908-686-0044
Fax: 908-686-0715
E-Mail: jimf@mars.superlink.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101306-0

Environmental Services International, Inc.

6404 MacCorkle Avenue, SW, Suite #2
St. Albans, WV 25177
Contact: Mr. Scott Rodeheaver
Phone: 304-768-2233
Fax: 304-768-9988
E-Mail: esilab@citynet.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101323-0

PA DEP Bureau of Laboratories

P.O. Box 1467
Harrisburg, PA 17105-1467
Contact: Mr. Floyd D. Kefford
Phone: 717-787-4669
Fax: 717-783-1502
E-Mail: Kefford.Floyd@al.DEP.state.PA.US

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101331-0**Kellco Services, Inc.**

3137 Diablo Ave.
Hayward, CA 94545
Contact: Dr. Xiaomin (Simon) Wang
Phone: 510-786-9751
Fax: 510-786-9625
E-Mail: xwang@kellco.com
URL: <http://www.kellco.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101332-0**New York Testing Laboratories, Inc.**

100 Sweeneydale Avenue
Bay Shore, NY 11706
Contact: Mr. David Chen
Phone: 631-952-7300
Fax: 631-952-7441

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101350-0**PSI**

850 Poplar Street
Pittsburgh, PA 15220
Contact: Ms. Lucie Jean
Phone: 412-922-4010 x260
Fax: 412-922-4014

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101356-0**Beling Consultants, Inc.**

1001 16th Street
Moline, IL 61265
Contact: Mr. David M. Bloss
Phone: 309-757-9870
Fax: 309-757-9812
E-Mail: dbloss@beling.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101375-0**Galson Laboratories**

6601 Kirkville Road
P.O. Box 369
East Syracuse, NY 13057
Contact: Ms. Eva Galson
Phone: 315-432-5227
Fax: 315-437-0571

URL: <http://www.galsonlabs.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101383-0**Portsmouth ES&H Analytical**

Portsmouth Uranium Enrichment Plant
P.O. Box 628, 3930 US Route 23
Piketon, OH 45661
Contact: Mr. W. Randy Waugh
Phone: 614-897-2057
Fax: 614-897-5650

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101384-0**Health Science Associates**

10771 Noel Street
Los Alamitos, CA 90720-2547
Contact: Ms. Jaime Steedman-Lyde
Phone: 714-220-3922
Fax: 714-220-2081
E-Mail: steedmanlyde@earthlink.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101410-0**Davis & Floyd, Inc.**

816 East Durst Street
P.O. Drawer 428
Greenwood, SC 29649
Contact: Mr. E. Carl Burrell, Jr.
Phone: 864-229-4413
Fax: 864-229-7119
E-Mail: cburrell@davisfloyd.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101415-0

Larron Laboratory

529 Broadway
Cape Girardeau, MO 63701
Contact: Mr. Ronald E. Farrow
Phone: 573-334-8910
Fax: 573-334-8910
E-Mail: mark014@marz.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101421-0

Hillmann Environmental Group, L.L.C.

1600 Route 22 East
Union, NJ 07083-1597
Contact: Ms. Marianne Hillmann
Phone: 908-688-7800
Fax: 908-686-2636
E-Mail: hecopa@penn.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101424-0

TRC Environmental Corporation

5 Waterside Crossing
Windsor, CT 06095
Contact: Mr. Lance R. Cotton
Phone: 860-298-6326
Fax: 860-298-6399
E-Mail: lcotton@trcos.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101425-0

Marine Chemist Service, Inc.

11850 Tug Boat Lane
Newport News, VA 23606
Contact: Ms. Tina Greer
Phone: 757-873-0933
Fax: 757-873-1074
E-Mail: marchem@visi.net
URL: <http://www.marinechemist.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101433-0

Dames & Moore, Inc.

5 Industrial Way
Salem, NH 03079
Contact: Mr. Douglas R. Lawson
Phone: 603-893-0616
Fax: 603-893-6240

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101440-0

RI Analytical Laboratories, Inc.

41 Illinois Avenue
Warwick, RI 02888-3007
Contact: Mr. Eric Neff
Phone: 401-737-8500
Fax: 401-738-1970

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101442-0

ASBESTECH

6825 Fair Oaks Blvd., Suite 103
Carmichael, CA 95608
Contact: Mr. Tommy Conlon
Phone: 916-481-8902
Fax: 916-481-3975

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101457-0

Assaigai Analytical Laboratories, Inc.

7300 Jefferson NE
P.O. Box 90430
Albuquerque, NM 87199-0430
Contact: Mr. William P. Biava
Phone: 505-822-8061
Fax: 505-822-8063
E-Mail: bjbiava@swcp.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101459-0

Forensic Analytical

3777 Depot Road, Suite 409
Hayward, CA 94545-2761
Contact: Mr. David Sandusky
Phone: 510-887-8828
Fax: 510-887-4218
E-Mail: Daves@forensica.com
URL: <http://www.forensica.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101459-1

Forensic Analytical Specialties, Inc.

2959 Pacific Commerce Drive
Rancho Domingues, CA 90221
Contact: Matilde Antillon
Phone: 310-763-2374
Fax: 310-763-8684

URL: <http://www.forensica.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101463-0

Northern Testing Laboratories, Inc.

3330 Industrial Avenue
Fairbanks, AK 99701-7395
Contact: Ms. Cindy L. Christian
Phone: 907-456-3116
Fax: 907-456-3125
E-Mail: clcntl@polarnet.com
URL: <http://www2.polarnet.com/~ntl>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101496-0

Knoxville Branch Laboratory-TN Dept. Health

East TN Regional Office
P.O. Box 59019, 1522 Cherokee Trail
Knoxville, TN 37950-9019
Contact: Dr. Philip M. Baker
Phone: 423-549-5201
Fax: 423-594-5199

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101505-0

Los Angeles Unified School District

BSC Annex, Env. Health & Safety Branch
1449 So. San Pedro Street
Los Angeles, CA 90015
Contact: Ms. Greta Galoustian
Phone: 213-743-5086
Fax: 213-749-7201
E-Mail: ggaloust@lausd.k12.ca.us

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101506-0

Environmental Health Laboratories

St. Louis County Department of Health
111 So. Meramec
Clayton, MO 63105-1711
Contact: Dr. Robert A. Nicolotti
Phone: 314-854-6830
Fax: 314-854-6648
E-Mail: robert_nicolotti@co.st-louis.mo.us

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101510-0

Fibertec, Inc.

2280 Aurelius Road
Holt, MI 48842-2165
Contact: Mr. Phillip A. Peterson
Phone: 517-699-0345
Fax: 517-699-0388
E-Mail: asbestos@fibertec-USA.com
URL: <http://www.asbestos@fibertec-usa.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101514-0

EnviroMed Services, Inc.

25 Science Park
New Haven, CT 06511
Contact: Mr. Joseph Pasquariello
Phone: 203-786-5580
Fax: 203-786-5579

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101515-0

Law Engineering and Environmental Services, Inc.

4919 West Laurel Street
Tampa, FL 33607
Contact: Mr. Monte Hall
Phone: 813-289-0750
Fax: 813-289-5474
E-Mail: mhall@lawco.com
URL: <http://www.law-USA.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101515-1

Law Engineering and Environmental Services, Inc.

5845 N.W. 158th Street
Miami Lakes, FL 33014
Contact: Chris DuBour
Phone: 305-826-5588
Fax: 305-826-1799

URL: <http://www.law-USA.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101523-0

DHMH-Air Quality Laboratory

201 West Preston Street
P.O. Box 2355
Baltimore, MD 21201-2355
Contact: Ms. Yvonne Tai-Sen-Choy
Phone: 410-767-5948
Fax: 410-333-5403

URL: <http://www.charm.net/~epi6/labs.htm>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101539-0

Puget Sound Naval Shipyard

Code 134, Bldg. 371
1400 Farragut Ave.
Bremerton, WA 98314-5000
Contact: Mr. Michael Heaton
Phone: 360-476-8091
Fax: 360-476-5587
E-Mail: heatonm@psns.navy.mil

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101545-0

Nova Consulting Group, Inc.

1107 Hazeltine Boulevard, Suite 400
Chaska, MN 55318-1008
Contact: Mr. Steve Cummings
Phone: 612-448-9393
Fax: 612-448-9572
E-Mail: Novasbc@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101558-0

Con Edison - ChemLab

31-01 20th Avenue, Bldg. 138
Long Island City, NY 11105-2048
Contact: Mr. Edward Chin
Phone: 718-204-4148
Fax: 718-956-8058

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101567-0

South Coast Air Quality Management District

21865 E. Copley Drive
Diamond Bar, CA 91765-4182
Contact: Ms. Corazon B. Choa
Phone: 909-396-2172
Fax: 909-396-2175
E-Mail: cchoa@aqmd.gov

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101572-0

South Carolina Department of Health & Environmental Control

Division of Air Quality Analysis
8231 Parklane Road
Columbia, SC 29223-4903
Contact: Mr. Scott A. Reynolds
Phone: 803-935-7020
Fax: 803-935-7363
E-Mail: reynolds@columb36.dhec.state.sc.us

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101578-0

AGX, Inc.

50 Progress Avenue
Cranberry Township, PA 16066
Contact: Mr. Daniel Winkle
Phone: 724-776-1905
Fax: 724-776-5714

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101587-0

Environmental Enterprise Group(EEG), Inc.

220 North Knoxville, Suite 200
Russellville, AR 72801
Contact: Mr. Keith Zimmerman
Phone: 501-968-6767
Fax: 501-968-1956
E-Mail: eeginc@cswnet.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101593-0

National Environmental Reference Laboratory

C/O US Geological Survey, MS PHL/NERL
P.O. Box 25046
Denver, CO 80225-0046
Contact: Mr. Bruce Hills
Phone: 303-236-3455 x500
Fax: 303-236-3440

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101594-0

TolTest, Inc.

1915 North 12th Street
P.O. Box 2186
Toledo, OH 43624-1305
Contact: Ms. Susan Pellitieri
Phone: 419-241-7175
Fax: 419-241-1808
E-Mail: spellitieri@toltest.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101595-0

Envirotest, Inc.

3902 Braxton
Houston, TX 77063-6304
Contact: Dr. James D. Murphy
Phone: 713-782-4411
Fax: 713-782-3428
E-Mail: murphy@envirotestinc.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101611-0

Applied Environmental, Inc.

11800 Sunrise Valley Drive, Suite 1200
Reston, VA 20191
Contact: Ms. Jana H. Ambrose
Phone: 703-648-0822
Fax: 703-648-0575

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101618-0

Ambient Labs, Inc.

159 West 25th Street, 8th Floor
New York, NY 10001-7203
Contact: Mr. William Esposito, Jr.
Phone: 212-463-7812
Fax: 212-463-9397

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101631-0

Pacific Rim Environmental, Inc.

6510 Southcenter Boulevard
Tukwila, WA 98188
Contact: Mr. William F. Golloway
Phone: 206-244-8965
Fax: 206-244-9096

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101646-0

Eastern Analytical Services, Inc.

4 Westchester Plaza
Elmsford, NY 10523-1610
Contact: Mr. Paul Stascavage
Phone: 914-592-8380
Fax: 914-592-8956
E-Mail: PaulS@EASInc.com
URL: <http://www.EASInc.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101649-0

Asbestos Consulting & Testing (ACT)

14953 West 101st Terrace
Lenexa, KS 66215
Contact: Mr. Jim A. Pickel
Phone: 913-492-1337
Fax: 913-492-1392

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101661-0

Aurora Consolidated Laboratories

8901 W. Lincoln Avenue
West Allis, WI 53227
Contact: Dr. Leon Saryan
Phone: 414-328-7946
Fax: 414-328-8560

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101672-0

TC Analytics, Inc.

1200 Boissevain Ave.
Norfolk, VA 23507
Contact: Mr. Steven J.E. Long
Phone: 757-627-0400
Fax: 757-627-1118
E-Mail: slong@tceg.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101703-0

U.S. EPA - National Enforcement Investigations Center

Box 25227 Bldg. 53, Denver Federal Ctr.
Denver, CO 80225
Contact: Ms. Peggy J. Forney
Phone: 303-236-6079
Fax: 303-236-5116
E-Mail: forney.peggy@epa.gov

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101704-0

Allegheny Asbestos Analysis

416 Anthony Street
Carnegie, PA 15106
Contact: Ms. Tammy Seiler
Phone: 412-278-5400
Fax: 412-278-5404
E-Mail: tseiler@gloenvmngmt.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101727-0

AnalyticalLab

8270 Archer Avenue
Willow Springs, IL 60480
Contact: Mr. Richard J. Langenderfer
Phone: 708-839-1338
Fax: 708-839-6970

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101732-0

United Analytical Services, Inc.

1515 Brook Drive
Downers Grove, IL 60515-1024
Contact: Dr. Charles D. Byers
Phone: 630-691-8271
Fax: 630-691-1819
E-Mail: uasinc@flash.net
URL: <http://www.flash.net/~uasinc.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101735-0**Jimmie Ann Bolton**

2105 Nathan Drive
Austin, TX 78728-4530
Contact: Ms. Jimmie Ann Bolton
Phone: 512-251-8388
Fax: 512-251-8388

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101759-0**Comprehensive Health Services-Environmental Health PLM Laboratory**

Environmental Health PLM Laboratory
CHS-022
Kennedy Space Center, FL 32899
Contact: Ms. Joanne W. Creech
Phone: 407-867-9014
Fax: 407-867-3694
E-Mail: joanne.creech-1@kmail.ksc.nasa.gov

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101768-0**Carolina Environmental, Inc.**

102-H Commonwealth Court
Cary, NC 27511
Contact: Dr. Tianbao Bai
Phone: 919-481-1413
Fax: 919-481-1442

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101775-0**American Asbestos Laboratories, Inc.**

14505 Commerce Way, Suite 400
Miami Lakes, FL 33016
Contact: Dr. Daniel J. Cottrell
Phone: 305-374-8300
Fax: 305-374-9004
E-Mail: eegmiami@mindspring.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101781-0**Covino Environmental Associates, Inc.**

300 Wildwood Avenue
Woburn, MA 01801
Contact: Ms. Ann D. Eckmann
Phone: 781-933-2555
Fax: 781-932-9402
E-Mail: covino@tiac.net
URL: <http://www.covinoenvironmental.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101793-0**A & B Environmental Services, Inc.**

1643 Federal Road
Houston, TX 77015
Contact: Mr. Robert L. Voorhies
Phone: 713-453-6060
Fax: 713-453-6091
E-Mail: aandblab@flash.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101803-0**CAMCO Lab**

11040 Rose Avenue
Fontana, CA 92337-7051
Contact: Ms. Pamela Landreth
Phone: 909-428-3099
Fax: 909-428-3098

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101807-0**EnvironMETeo Services Inc.**

94-515 Ukee Street, Suite 304
Waipahu, HI 96797
Contact: Mr. Clifford How
Phone: 808-671-8383
Fax: 808-671-7979
E-Mail: emet@aloha.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101832-0

A.R.C. Laboratories, Inc.
 1323 9th Avenue South
 Grand Forks, ND 58201
 Contact: Mr. Joseph J. Worman
 Phone: 701-772-6496
 Fax: 701-772-6416
 E-Mail: arclabs@arclabs.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101848-0

Environmental Testing, Inc.

100 South Cass Street
 P.O. Box 138
 Middletown, DE 19709-0138
 Contact: Ms. Lee Ann Shinaberry
 Phone: 302-378-4955
 Fax: 302-378-9107
 E-Mail: LEEANN.ECSI@DEL.NET

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101853-0

RCM Laboratories, Inc.

5400 East Avenue, Second Floor
 Countryside, IL 60525
 Contact: Mr. Thomas P. Marlin
 Phone: 708-485-8600
 Fax: 708-485-8607

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101855-0

Analytical Industries, Inc.

6025 Kentucky Dam Road
 P.O. Box 3327
 Paducah, KY 42003
 Contact: Mr. Steve Stamper
 Phone: 502-898-8683
 Fax: 502-898-3531
 E-Mail: aii@apex.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101864-0

Design for Health Environmental Services

3574 Kettner Blvd.
 San Diego, CA 92101
 Contact: Mr. Kabir Shefa
 Phone: 619-291-1777
 Fax: 619-291-4318
 E-Mail: DFHPRD@AOL.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101868-0

AIResearch, Inc.

Environmental Consultants and Laboratory
 3031 North 114th Street
 Wauwatosa, WI 53222
 Contact: Mr. Aleksey Torosin
 Phone: 414-476-3131
 Fax: 414-476-2201

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101869-0

NetCompliance Products & Services, Inc.

101 East 8th Street, Suite 250
 Vancouver, WA 98660
 Contact: Mr. Naresh C. Singh, CQA
 Phone: 360-699-4015
 Fax: 360-699-5223
 E-Mail: nareshs@netcompliance.com
 URL: <http://www.netcompliance.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101870-0

Sun City Analytical, Inc.

1409 Montana
 El Paso, TX 79902
 Contact: Ms. Priscilla Acuna
 Phone: 915-533-8840
 Fax: 915-533-8843
 E-Mail: scai@flash.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101871-0

Apollo Environmental, Inc.

11553 U.S. Highway 41 South
P.O. Box 239
Gibsonton, FL 33534-9720
Contact: Mr. Michael L. Williamson
Phone: 813-671-3999
Fax: 813-677-3422
E-Mail: LaFroice@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101872-0

Micro Analytical Laboratories, Inc.

5900 Hollis Street, Suite M
Emeryville, CA 94608-2008
Contact: Mr. Frank Raviola
Phone: 510-653-0824
Fax: 510-653-1361
E-Mail: microlab@labmicro.com
URL: <http://www.labmicro.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101882-0

Environmental Hazards Services, L.L.C.

7469 White Pine Road
Richmond, VA 23237
Contact: Ms. Irma Faszewski
Phone: 804-275-4788
Fax: 804-275-4907
E-Mail: managerqac@leadlab.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101884-0

Concord Analysis, Inc.

9960 Canoga Ave., Suite D8
Chatsworth, CA 91311-6704
Contact: Ms. Johanna Fann
Phone: 818-407-0128
Fax: 818-882-9409

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101886-0

Prezant Associates, Inc.

330 Sixth Avenue North, Suite 200
Seattle, WA 98109
Contact: Mr. George G. McCaslin
Phone: 206-281-8858 x135
Fax: 206-281-8922
E-Mail: jmccaslin@prezant.com
URL: <http://www.prezant.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101890-0

Mountain Laboratories

10905 East Montgomery Avenue, Suite 1
Spokane, WA 99206
Contact: Mr. Wade K. Johnston
Phone: 509-924-9236
Fax: 509-924-2287
E-Mail: mcswade@ism.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101891-0

Asbestos TEM Laboratories, Inc.

1409 Fifth Street, Suite C
Berkeley, CA 94710
Contact: Mr. R. Mark Bailey
Phone: 510-528-0108
Fax: 510-528-0109
E-Mail: MBaileyASB@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101894-0

Midwest Laboratories, Inc.

6246 Joliet Road, Suite 4
Countryside, IL 60525
Contact: Mr. James P. Hahn
Phone: 708-354-7117
Fax: 708-354-7142

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101895-0

McCall and Spero Environmental, Inc.

13005 Middletown Industrial Blvd.
Suite H
Louisville, KY 40223
Contact: Mr. R. Dale McCall
Phone: 502-244-7135
Fax: 502-244-7136
E-Mail: rmccalool@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101896-0

Reservoirs Environmental Services, Inc.

1827 Grant Street
Denver, CO 80203
Contact: Ms. Jeanne Spencer Orr
Phone: 303-830-1986
Fax: 303-863-9196
E-Mail: residen@rmi.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101902-0

E. M. Analytical, Inc.

8000 North Ocean Drive
Dania, FL 33004-3078
Contact: Ms. Pat Blackwelder
Phone: 305-751-1184
Fax: 954-921-6747
E-Mail: pblackwelder@rsmas.miami.edu

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101904-0

Scientific Laboratories, Inc.

13635 Genito Road
Midlothian, VA 23112
Contact: Mr. Rob Fleet
Phone: 804-763-1200
Fax: 804-763-1800
E-Mail: SCILAB5@EROLS.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101904-1

Scientific Laboratories, Inc.

117 East 30th Street
New York, NY 10016
Contact: Dr. Robert E. Tompkins
Phone: 212-679-8600
Fax: 212-679-9392
E-Mail: SCILAB7@EROLS.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101909-0

Analytical Labs San Francisco, Inc.

470 Potrero Avenue
San Francisco, CA 94110
Contact: Ms. Olga Kist
Phone: 415-552-4595
Fax: 415-552-0730
E-Mail: alsf@wenet.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101910-0

PBS Environmental Building Consultants, Inc.

1220 SW Morrison Street, Suite 600
Portland, OR 97205-2225
Contact: Mr. Rollie Champe
Phone: 503-248-1939
Fax: 503-248-0223

URL: <http://www.pbsebv.com/pbsinfo>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101917-0

DataChem Laboratories

4388 Glendale-Milford Road
Cincinnati, OH 45242-3706
Contact: Ms. Anna Marie Ristich
Phone: 513-733-5336
Fax: 513-733-5347
E-Mail: amristich@datachemlabs.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101920-0

Lab/Cor, Inc.

7619 6th Avenue, NW
Seattle, WA 98117-4037
Contact: Mr. John Harris
Phone: 206-781-0155
Fax: 206-789-8424
E-Mail: labcorl@aol.com

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101926-0

Environmental Management Consultants, Inc.

7342 East Thomas Road
Scottsdale, AZ 85251-7216
Contact: Mr. Kurt A. Kettler
Phone: 480-840-8012
Fax: 480-990-8468
E-Mail: kkettler@earthlink.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101937-0

Environmental Testing Laboratories, Inc.

208 Route 109
Farmingdale, NY 11735
Contact: Mr. Daniel J. Spandau
Phone: 516-249-1456
Fax: 516-249-8344

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101941-0

Kevco Services, Inc.

890 Pittsburgh Road
Butler, PA 16002-8901
Contact: Mr. George M. Beck
Phone: 724-586-6343
Fax: 724-586-2172

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101948-0

MACS Lab, Inc.

2070A Walsh Avenue
Santa Clara, CA 95050-2531
Contact: Mr. James A. Richards
Phone: 408-727-9727
Fax: 408-727-7065
E-Mail: jrichards@macslab.com
URL: <http://www.macslab.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101949-0

LEX Scientific Inc.

2 Quebec Street, Suite 204
Guelph Ontario N1H 2T3
CANADA
Contact: Ms. Kim O'Neill
Phone: 519-824-7082
Fax: 519-824-5784
E-Mail: LEXSCI@SENTEX.NET
URL: <http://www.sentex.net/~LEXSCI>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101950-0

WKP Laboratories, Inc.

228 E. 45th St. 10 Floor
New York City, NY 10017
Contact: Mr. Fabio J. Pedone
Phone: 212-922-0077
Fax: 212-922-0630

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101953-0

JLC Environmental Consultants, Inc.

200 Park Avenue South, Suite 1001
New York, NY 10003
Contact: Mr. Al Wallner
Phone: 212-420-8119
Fax: 212-420-6092
E-Mail: JLCenviron@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101958-0

Athenica Environmental Services, Inc.

45-09 Greenpoint Avenue
Long Island City, NY 11104
Contact: Mr. Spiro Dongaris
Phone: 718-784-7490
Fax: 718-784-4085

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101959-0

QuanTEM Laboratories, LLC

2033 Heritage Park Drive
Oklahoma City, OK 73120-7579
Contact: Mr. John E. Barnett
Phone: 405-755-7272
Fax: 405-755-2058
E-Mail: quantem@ionet.net
URL: <http://www.quantem.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 101965-0

Bell Laboratories, Division Lucent Technologies, Inc.

P.O. Box 636, 600 Mountain Avenue
Murray Hill, NJ 07974-0636
Contact: Mr. Robert M. Markow
Phone: 908-582-2184
Fax: 908-582-4515
E-Mail: rmarkow@lucent.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 101967-0

NY Environmental & Analytical Labs, Inc.

88 Harbor Road
Port Washington, NY 11050
Contact: Mr. Li Tsang
Phone: 516-944-9500
Fax: 516-944-9507
E-Mail: NYEA@YAHOO.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101973-0

Law Engineering and Environmental Services, Inc.

7616 LBJ Freeway, Suite 600
Dallas, TX 75251
Contact: Mr. John R. Cates
Phone: 972-934-0800
Fax: 972-934-1429
E-Mail: jcates@lawco.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101974-0

Rapid Environmental Management, Inc.

425 Northern Blvd., Suite 3
Great Neck, NY 11021
Contact: Mr. Joseph Sterinbach
Phone: 516-482-3003
Fax: 516-482-3076
E-Mail: joerapid@hotmail.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101977-0

ACM Environmental, Inc.

229 South Michigan Street
South Bend, IN 46601
Contact: Mr. Michael A. Dials
Phone: 219-234-8435
Fax: 219-234-6800

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101990-0

Iowa Environmental Services, Inc.

4801 Grand Avenue
Des Moines, IA 50312
Contact: Mr. Richard E. Soyer
Phone: 515-279-8042
Fax: 515-279-1853

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 101996-0

GA Environmental Services, Inc.

401 Baldwin Tower
1510 Chester Pike
Eddystone, PA 19022
Contact: Ms. Delores S. Beard
Phone: 610-874-7405
Fax: 610-874-7823

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 101997-0

Hygieneering, Inc.

7575 Plaza Court
Willowbrook, IL 60521
Contact: Ms. Jacqueline M. Cadwallader
Phone: 630-654-2550
Fax: 630-789-3813

URL: <http://www.hygieneering.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 102000-0

**Louisiana Department of Environmental Quality
Microanalytical Lab**

Microanalytical Lab
8000 GSRI Avenue, Building #402
Baton Rouge, LA 70820
Contact: Ms. Pamela D. Ellis
Phone: 225-765-0876
Fax: 225-765-0048
E-Mail: pame@deq.state.la.us/

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102001-0

Testing Mechanics Corp.

3770 Merrick Road
Seaford, NY 11783-2815
Contact: Mr. Kevin Tumulty
Phone: 516-221-3800
Fax: 516-221-3810
E-Mail: LITUMULTY@AOL.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102003-0

GLE Associates, Inc.

1451 Channelside Drive, Suite 200
Tampa, FL 33605
Contact: Ms. Jennifer Workman
Phone: 813-241-8350
Fax: 813-241-8737

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102005-0

University of Alabama Asbestos Laboratory

Bryant Drive - Martha Parham West
P.O. Box 870388
Tuscaloosa, AL 35487-0388
Contact: Ms. Lynn M. Fondren
Phone: 205-348-8571
Fax: 205-348-9286
E-Mail: LFONDREN@CCS.UA.EDU
URL: <http://bama.ua.edu/~deip/envprogs.html#LAB>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 102006-0

Solar Environmental Services, Inc.

1131 E. 76th Avenue, Suite 102
Anchorage, AK 99518
Contact: Ms. Gracita O. Torrijos
Phone: 907-349-7705
Fax: 907-349-7944
E-Mail: sesenvir@ak.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102008-0

Micro Air of Texas, Inc.

1052 Hercules Drive
Houston, TX 77058
Contact: Mr. Eric Eitzen
Phone: 281-280-9965
Fax: 281-280-9847

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102010-0

Fluor Daniel Fernald, Inc., Analytical Laboratory Services

P.O. Box 538704
Cincinnati, OH 45253-8704
Contact: Ms. Amy Meyer
Phone: 513-648-5423
Fax: 513-648-5198
E-Mail: amy_meyer@fernald.gov

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102011-0

Airtek Environmental Corp.

39 West 38th Street, 12th Floor
New York, NY 10018
Contact: Mr. Saad Zouak
Phone: 212-768-0516
Fax: 212-768-0759

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102012-0

JMS Environmental Associates, Ltd.

816 Burr Oak Drive
Westmont, IL 60559
Contact: Mr. John Aschbacher
Phone: 630-655-8500
Fax: 630-655-8724
E-Mail: jms@starnetinc.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102013-0

Hi-Tech Environmental and Laboratory Services

DBA Hi-Tech Environmental & Lab. Svcs.
5396 Lincoln Ave., Suite A
Cypress, CA 90630
Contact: Ms. Gwenda Hatcher
Phone: 714-827-0693
Fax: 714-827-0695
E-Mail: Hitechol@ix.netcom.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 102015-0

ABM Environmental Consultants, Inc.

32-08 38th Ave., Suite 203
Long Island City, NY 11101
Contact: Mr. Victor Khanin
Phone: 718-472-0558
Fax: 718-472-0548

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102020-0

Los Angeles Harbor Department Testing Laboratory

P.O. Box 786, 514 Pier A Street
Wilmington, CA 90744-6499
Contact: Mr. George Horeczko
Phone: 310-732-3976
Fax: 310-835-5717

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 102021-0

Safe Environment of America, Inc.

dba Med-Tox Northwest
19032 66th Avenue S., #C-105
Kent, WA 98032-2116
Contact: Ms. Kimberly Brooks
Phone: 425-656-2920
Fax: 425-656-2924
E-Mail: medtownw@msn.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102025-0

OCCU-TEC, Inc.

6700 Corporate Drive, Suite 130
Kansas City, MO 64120
Contact: Mr. Geoffrey Smith
Phone: 816-231-5580 X234
Fax: 816-231-5641
E-Mail: occutec@unicom.net
URL: <http://www.occutec.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102029-0**ESG Laboratories**

5933 W. 71st Street
Indianapolis, IN 46278
Contact: Ms. Mary Dunlap
Phone: 317-290-1471
Fax: 317-290-1670

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 102031-0**ATC Environmental, Inc.**

6746 South Revere Parkway, Suite 180
Englewood, CO 80112-6708
Contact: Mr. Jeffrey Lomme
Phone: 303-799-6100
Fax: 301-799-3441

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102035-0**Law Engineering and Environmental Services, Inc.**

4634 S. 36th Place
Phoenix, AZ 85040
Contact: Mr. Michael A. Cook
Phone: 602-437-0250
Fax: 602-437-3675
E-Mail: mcook@lawco.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102041-0**R. Robinson Analytical Services, Inc.**

1960 Peyton Drive
Pensacola, FL 32503
Contact: Mr. William F. Robin Robinson
Phone: 850-438-5552
Fax: 850-432-7394
E-Mail: rrobinson@gulf.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102043-0**Water, Earth Solutions & Technologies, Inc.**

17130 Dallas Parkway, Suite 120
Dallas, TX 75248-1139
Contact: Mr. Karl Schul
Phone: 972-380-9444
Fax: 972-380-9449

URL: <http://www.water-earth.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102046-0**Criterion Laboratories, Inc.**

3370 Progress Drive, Suite J
Bensalem, PA 19020
Contact: Ms. Parvaneh S. Sulon
Phone: 215-244-1300
Fax: 215-244-4349
E-Mail: CriterionL@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102047-0**KAM Consultants**

35-40 36th Street
Long Island City, NY 11106
Contact: Mr. George Kouvaras
Phone: 718-729-1997
Fax: 718-729-1876

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102050-0**Occupational Health Conservation, Inc.**

1840 Southside Blvd., Suite 3C
Jacksonville, FL 32216-0317
Contact: Ms. A. Lynn Bundoc
Phone: 904-725-8279
Fax: 904-721-2809
E-Mail: lab@ohcnet.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 102053-0

Dove Environmental Corporation

4715 NW 157th Street, Suite 203
Miami, FL 33014
Contact: Mr. Rajendranath Ramnath
Phone: 305-620-6050
Fax: 305-620-6350

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102056-0

Steve Moody Micro Services, Inc.

1510 Randolph St., Suite #602
Carrollton, TX 75006
Contact: Mr. Steve Moody
Phone: 972-446-9482
Fax: 972-446-9870
E-Mail: SMMS1@AIRMAIL.NET

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102057-0

Niche Analysis, Inc.

6 Gramatan Avenue, Suite 404
Mount Vernon, NY 10550
Contact: Dr. Thomas Palackal
Phone: 914-663-8937
Fax: 914-663-8782

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102060-0

Froehling & Robertson, Inc.

3015 Dumbarton Road
P.O. Box 27524
Richmond, VA 23261-7524
Contact: Mr. Jeffrey M. Hudson
Phone: 804-264-2701
Fax: 804-266-1275
E-Mail: FRChemical@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102061-0

Omni Environmental, Inc.

13740 Research Blvd., Suite H-5
Austin, TX 78750
Contact: Mr. Joseph Mink
Phone: 512-258-9114
Fax: 512-258-9115
E-Mail: jmink@prismnet.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102062-0

National Econ Corporation

730 El Camino Real
Tustin, CA 92780
Contact: Mr. Mark S. Ervin
Phone: 714-730-9235
Fax: 714-730-9236
E-Mail: NationalEconCorp@earthlink.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 102063-0

NVL Laboratories, Inc.

4708 Aurora Avenue N.
Seattle, WA 98103
Contact: Mr. Nghiep Vi Ly
Phone: 206-547-0100
Fax: 206-634-1936
E-Mail: munaf@nvllabs.com
URL: <http://www.nvllabs.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 102065-0

Wonder Makers Environmental, Inc.

2117 Lane Boulevard
P.O. Box 50209
Kalamazoo, MI 49005-0209
Contact: Dr. Michael Pinto
Phone: 616-382-4154
Fax: 616-382-4161
E-Mail: info@wondermakers.com
URL: <http://www.wondermakers.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 102073-0

Triad Environmental Consulting, Inc.

309 3rd Avenue
Huntington, WV 25701
Contact: Mr. Brian E. Galligan
Phone: 304-523-2195
Fax: 304-523-2197
E-Mail: Duxster@earthlink.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102077-0

Palmetto Laboratory, Inc.

33 Fourth St. North, Suite 208
St. Petersburg, FL 33701
Contact: Mr. John J. Henderson
Phone: 727-550-0603
Fax: 727-550-9315

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 102078-0

FRS Geotech, Inc.

1441 West 46th Avenue, Suite 14
Denver, CO 80211-2338
Contact: Mr. Ed Raines
Phone: 303-477-2559
Fax: 303-477-2580
E-Mail: frsgeo@ix.netcom.com
URL: <http://www.netcom.com/frsgeo>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 102079-0

SCILAB BOSTON, Inc.

8 School Street
East Weymouth, MA 02189
Contact: Mr. John Sulkowski
Phone: 781-337-9334
Fax: 781-337-7642

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102081-0

Legend Technical Services, Inc.

775 Vandalia Street
St. Paul, MN 55114
Contact: Ms. Cheryl Sykora
Phone: 612-642-1150
Fax: 612-642-1239
E-Mail: cas@legend-group.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102082-0

Analytical Environmental Services, Inc.

3125 Marjan Drive
Atlanta, GA 30340
Contact: Mr. Mehmet Yildirim
Phone: 770-454-6333
Fax: 770-451-3151

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 102083-0

Twin Ports Testing, Inc.

1301 N. 3rd Street
Superior, WI 54880-1131
Contact: Mr. Greg Heinecke
Phone: 715-392-7114
Fax: 715-392-7163
E-Mail: TPT@GNN.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102085-0

Muranaka Environmental Consultants, Inc.

500 Alakawa Street, Suite 220
P.O. Box 4341
Honolulu, HI 96812
Contact: Mr. Mark T. Muranaka
Phone: 808-848-8866
Fax: 808-847-5267
E-Mail: MMURANAKA@AOL.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 102086-0

Dolphin Environmental Consultants

10707 Corporate Drive, Suite 102
Stafford, TX 77477-4001
Contact: Mr. Joseph Bury
Phone: 281-240-4646
Fax: 281-240-5659
E-Mail: JBURY@COMPUSERVE.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102087-0

Hygeia Laboratories, Inc.

1300 Williams Drive, Suite A
Marietta, GA 30066-6299
Contact: Mr. Clayton Call
Phone: 770-514-6933
Fax: 770-514-6966

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102089-0

Alpine Consulting, Inc.

1706 N. Circle Drive
Colorado Springs, CO 80909
Contact: Mr. Kevin R. Weaver
Phone: 719-473-2311
Fax: 719-473-2312

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102090-0

Bay Area Air Quality Management District

939 Ellis Street
San Francisco, CA 94109
Contact: Mr. James Hesson
Phone: 415-749-4625
Fax: 415-749-5101
E-Mail: jhesson@baaqmd.gov

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102091-0

Converse Consultants MR, Inc.

4840 Mill Street #5
Reno, NV 89502
Contact: Mr. Dan R. Dolk
Phone: 775-856-3833
Fax: 775-856-3513

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102101-0

Taylor Environmental Group, Inc.

130 Jericho Turnpike
Floral Park, NY 11001
Contact: Mr. George Taylor
Phone: 516-358-2955
Fax: 516-358-1780

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 102102-0

American Electric Power, Environmental Laboratory

Environmental Laboratory
1 Riverside Plaza
Columbus, OH 43215-2373
Contact: Mr. Geoffrey E. Campbell
Phone: 614-836-4210
Fax: 614-836-4168
E-Mail: Geoffrey_E._Campbell@AEP.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102104-0

EMSL Analytical, Inc.

620-G Guilford College Road
Greensboro, NC 27409
Contact: Ms. Pamela Stockdale
Phone: 336-297-1487
Fax: 336-297-1676

URL: <http://www.emsl.com/>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102106-0

EMSL Analytical, Inc.

2501 Central Parkway, Suite C-13
Houston, TX 77092
Contact: Mr. Lee W. Poye
Phone: 713-686-3635
Fax: 713-686-3645
E-Mail: LPoye@EMSL.COM
URL: <http://www/emsll.com/>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102108-0

m.a.c. Paran Consulting Services, Inc.

Analytical Laboratory
4005 Bach Buxton Road
Amelia, OH 45102
Contact: Mr. James R. Jones
Phone: 513-752-9111
Fax: 513-752-7973

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 102111-0

Cape Environmental Management, Inc.

2302 Parklake Drive, Suite 200
Atlanta, GA 30345-2907
Contact: Mr. Aleksey Reznik
Phone: 770-908-7200
Fax: 770-908-7219

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102112-0

**Oklahoma Dept. of Environmental Quality-State
Environmental Lab**

P.O. Box 1677
Oklahoma City, OK 73101-1677
Contact: Mr. Chris Armstrong
Phone: 405-702-9129
Fax: 405-702-9101
E-Mail: CHRIS.Armstrong@deqmail.state.ok.us

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 102114-0

EAI, Inc.

454 Central Avenue
Jersey City, NJ 07307
Contact: Mr. Robert Carvalho
Phone: 201-714-9858
Fax: 201-714-9895

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102115-0

Industrial Laboratory

Norfolk Naval Shipyard
Building 184, 3rd Fl.
Portsmouth, VA 23709-5000
Contact: Mr. Robert West
Phone: 757-396-3207
Fax: 757-396-3972
E-Mail: WestR@nnsy.navy.mil

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 102116-0

Hygeia Laboratories Inc.

82 W. Sierra Madre Blvd.
Sierra Madre, CA 91024-2434
Contact: Mr. Gustavo Delgado
Phone: 626-355-4711
Fax: 626-355-4497
E-Mail: gdelgado77@atc-enviro.com
URL: <http://home.earthlink.net/delgadog>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 102117-0

San Joaquin Environmental, Inc.

7257 North Maple Avenue, Suite #108
Fresno, CA 93720-0167
Contact: Mr. John E. Sherwin
Phone: 559-298-8500
Fax: 559-298-9500
E-Mail: sjeinc@pacbell.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 102118-0

Apex Research, Inc.
8739 Main Street, Suite I
Whitmore Lake, MI 48189
Contact: Mr. Robert Letarte
Phone: 734-449-9990
Fax: 734-449-9991

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200002-0

Cygnacom Solutions, Inc. CEAL and SEL Laboratories

7927 Jones Branch Drive, Suite 100 West
McLean, VA 22102-3305
Contact: Mr. Santosh Chokhani
Phone: 703-848-0883
Fax: 703-848-0960
E-Mail: chokhani@cygnacom.com
URL: <http://cygnacom.com>

Cryptographic Modules Testing

Accreditation Valid Through: June 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
17/C01	NIST-CSTT:140-1; National Institute of Standards and Technology-Cryptographic Support Test Tool (CSTT) for the Federal Information Processing Standard 140-1 (FIPS 140-1) "Security Requirements for Cryptographic Modules."
17/C01a	Test Method Group 1: All test methods derived from FIPS 140-1 and specified in the CSTT, except those listed in Group 2 and Group 3.
17/C01b	Test Method Group 2: Test methods for Physical Security, Level 4 derived from FIPS 140-1 and specified in the CSTT
17/C01c	Test Method Group 3: Test methods for Software Security, Level 4 derived from FIPS 140-1 and specified in the CSTT
17/C02	FIPS-Approved Cryptographic Algorithms (see < http://csrc.nist.gov/cryptval >) as required in FIPS PUB 140-1.

NVLAP LAB CODE 200004-0

Integrity Design & Test Services, an Entela Company

37 Ayer Road, Unit #7 & #9
Littleton, MA 01460
Contact: Mr. Michael Koffink
Phone: 978-486-0432
Fax: 978-486-0592

URL: integrity@idts.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code *Designation*

Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200005-0

Motorola EMC Test Services Lab

20 Cabot Boulevard
Mansfield, MA 02048
Contact: Mr. James E. Powers
Phone: 508-261-5241
Fax: 508-261-4777
E-Mail: LJP018@email.mot.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code *Designation*

Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology

- equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200007-0

Lithonia Testing Laboratories

1335 Industrial Blvd.
P.O. Box A
Conyers, GA 30012-9001
Contact: Mr. James Hospodarsky
Phone: 770-922-9000 x2424
Fax: 770-929-8789
E-Mail: jhospodarsky@lithonia.com

Energy Efficient Lighting Products

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Luminaires (Lighting Fixtures)

22/F04 IES LM-41

NVLAP LAB CODE 200010-0

Tri-State Materials Testing Lab, Inc.

121 P North Plains Industrial Road
Wallingford, CT 06492
Contact: Mr. William Antonetti
Phone: 203-949-7333
Fax: 203-949-7735
E-Mail: matteestlab@aol.com
URL: <http://www.materials-testing.com>

Construction Materials Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Aggregates

02/A03 ASTM C29
02/A04 ASTM C40
02/A07 ASTM C117
02/A09 ASTM C127
02/A10 ASTM C128
02/A12 ASTM C136
02/A15 ASTM D75
02/A44 ASTM C566

Cement

02/A17 ASTM C109
02/A22 ASTM C183

Concrete

02/A01 ASTM C39
02/A02 ASTM C617
02/A41 ASTM C192
02/A43 ASTM C1064
02/G01 ASTM C31/C172/C143/C138/C231

Road and Paving Materials

02/M08 ASTM D979
02/M24 ASTM D2041
02/M25 ASTM D2726

Soil and Rock

02/L02 ASTM D422
02/L04 ASTM D698
02/L06 ASTM D1140
02/L08 ASTM D1557
02/L13 ASTM D2216
02/L20 ASTM D4318

Standard Practices

02/A38 ASTM E329
02/A39 ASTM C1077
02/M26 ASTM D3666

NVLAP LAB CODE 200012-0

IPS Corporation

1878-1, Harumiya Ono, Tatsuno-machi,
Kamiina-gun, Nagano-ken, PO Box 399-0601
Nagano 399-0601
JAPAN

Contact: Mr. Takashi Maruyama
Phone: +81-266-44-5200
Fax: +81-266-44-5300
E-Mail: maruyama@ips-emc.co.jp
URL: <http://www.ips-emc.co.jp>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200013-0

ENCORP

615 North Nash Street, Suite 203
El Segundo, CA 90245
Contact: Mr. Felix Mateo
Phone: 310-640-9811
Fax: 310-640-9804
E-Mail: fmateo@encorp.net
URL: <http://www.encorp.net>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200016-0

Daybrite Lighting (Genlyte Thomas Group)

Photometric Laboratory

1015 S. Green Street
P.O. Box 1687
Tupelo, MS 38802-1687
Contact: Dr. David W. Knoble, P.E.
Phone: 601-842-7212
Fax: 601-841-5596
E-Mail: dknoble@genlytethomas.com

Energy Efficient Lighting Products

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Luminaires (Lighting Fixtures)

22/F01	IES LM-10
22/F03	IES LM-35
22/F04	IES LM-41
22/F05	IES LM-46

NVLAP LAB CODE 200017-0

DOMUS ITSL, ecommerce+, LGS Group, Incorporated

309 Cooper Street, 2nd Floor
Ottawa Ontario K2P 0G5
CANADA
Contact: Mr. William Dziadyk
Phone: 613-230-6286 x342
Fax: 613-230-3274
E-Mail: Bill_Dziadyk@LGS.com
URL: <http://www.domus.com>

Cryptographic Modules Testing

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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17/C01	NIST-CSTT:140-1; National Institute of Standards and Technology-Cryptographic Support Test Tool (CSTT) for the Federal Information Processing Standard 140-1 (FIPS 140-1) "Security Requirements for Cryptographic Modules."
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17/C01a	Test Method Group 1: All test methods derived from FIPS 140-1 and specified in the CSTT, except those listed in Group 2 and Group 3.
17/C01b	Test Method Group 2: Test methods for Physical Security, Level 4 derived from FIPS 140-1 and specified in the CSTT
17/C01c	Test Method Group 3: Test methods for Software Security, Level 4 derived from FIPS 140-1 and specified in the CSTT
17/C02	FIPS-Approved Cryptographic Algorithms (see < http://csrc.nist.gov/cryptval >) as required in FIPS PUB 140-1.

NVLAP LAB CODE 200018-0

Test-Con Incorporated

16 East Franklin Street
P.O. Box 3116
Danbury, CT 06813-3116
Contact: Mr. Chin Okwuka
Phone: 203-748-3012
Fax: 203-778-0633
E-Mail: chin@test-con.com
URL: <http://www.test-con.com>

Construction Materials Testing

Accreditation Valid Through: September 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Aggregates

02/A03	ASTM C29
02/A04	ASTM C40
02/A06	ASTM C88
02/A07	ASTM C117
02/A09	ASTM C127
02/A10	ASTM C128
02/A12	ASTM C136
02/A15	ASTM D75
02/A44	ASTM C566

Cement

02/A51	ASTM C780 (Annex A7)
02/A52	ASTM C1019

Concrete

02/A01	ASTM C39
02/A02	ASTM C617
02/A41	ASTM C192
02/A43	ASTM C1064
02/A45	ASTM C42
02/G01	ASTM C31/C172/C143/C138/C231
02/G02	ASTM C173

Road and Paving Materials

02/M11	ASTM D1188
02/M25	ASTM D2726

Soil and Rock

02/L02	ASTM D422
02/L04	ASTM D698
02/L05	ASTM D854
02/L06	ASTM D1140
02/L07	ASTM D1556
02/L08	ASTM D1557
02/L16	ASTM D2487

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

02/L17 ASTM D2488
02/L20 ASTM D4318
02/L23 ASTM D2922
02/L24 ASTM D2974
02/L31 ASTM D2167

Standard Practices

02/A38 ASTM E329
02/A39 ASTM C1077

NVLAP LAB CODE 200019-0**EMSL Analytical, Inc.**

14375 23rd Avenue North
Minneapolis, MN 55447
Contact: Ms. Rachael Travis
Phone: 612-449-4922
Fax: 612-449-4924

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 200020-0**Hubbell Lighting Photometric Laboratory**

2000 Electric Way
Christiansburg, VA 24073-2502
Contact: Mr. Steven Regnaud
Phone: 540-382-6111 x267
Fax: 540-382-1544
E-Mail: slregnau@hubbell-ltg.com
URL: www.hubbell-ltg.com/default.htm/photlab.html

Energy Efficient Lighting Products

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Luminaires (Lighting Fixtures)

22/F01 IES LM-10
22/F02 IES LM-31
22/F03 IES LM-35
22/F04 IES LM-41
22/F05 IES LM-46

NVLAP LAB CODE 200021-0**Wayne Langston, Inc.**

P.O. Box 1377
League City, TX 77574-1377
Contact: Mr. Wayne Langston
Phone: 281-337-6785
Fax: 281-337-7217
E-Mail: langstoninc@msn.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200024-0**Enviro Techniques, Inc.**

22 California Avenue
Paterson, NJ 07503
Contact: Mr. Frank Marino
Phone: 973-684-0202
Fax: 973-684-3007
E-Mail: ETICOM@MSN.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200027-0**Vartest Laboratories, Inc.**

19 West 36th Street, 10th Floor
New York, NY 10018-7909
Contact: Mr. Adam R. Varley
Phone: 212-947-8391
Fax: 212-947-8719
E-Mail: avarley@vartest.com
URL: <http://www.vartest.com>

Carpet and Carpet Cushion

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Tests Applicable to Carpet and Carpet Cushion

03/T01 AATCC 16 (Option E)
03/T02 ASTM D2646 (Secs. 16-24)
03/T04 16 CFR Part 1630 (FF-1-70)

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Tests Applicable to Carpets**

03/G01 AATCC 20
03/G02 AATCC 20A
03/G04 AATCC 165

NVLAP LAB CODE 200030-0**Dodge-Regupol, Inc. Laboratory**

715 Fountain Avenue
P.O. Box 989
Lancaster, PA 17608-0989
Contact: Mr. Clyde T. Diffendall
Phone: 717-295-3400 x262
Fax: 717-295-3414

Commercial Products Testing

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Plastics

15/A23a ASTM D412
15/A24 ASTM D573
15/A25a ASTM D624
15/A26 ASTM D2240
15/A30 ASTM D297 (Sec. 16; Para. 16.3)

NVLAP LAB CODE 200031-0**Intertek Testing Services NA Inc.**

8431 Murphy Drive
Middleton, WI 53562
Contact: Mr. Nigel Stamp
Phone: 608-824-7405
Fax: 608-831-9279
E-Mail: nstamp@itsqs.com
URL: <http://www.worldlab.com>

Thermal Insulation Materials

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Thermal Resistance

01/T04 ASTM C236

NVLAP LAB CODE 200033-0**3M Product Safety EMC Laboratory**

410 E. Fillmore Avenue
Bldg 76-1-01
St. Paul, MN 55144-1000
Contact: Mr. Greg Demaray
Phone: 612-736-4427
Fax: 612-737-1035
E-Mail: gedemaray@mmm.com

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

**Australian Standards referred to by clauses in ACA
Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions

**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200034-0**EMSL Analytical, Inc.**

Westwood Business Park 1801 Royal Lane
Suite 908
Dallas, TX 75229
Contact: Mr. Darryl Neldner
Phone: 972-831-9725
Fax: 972-444-0884

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 200036-0**Quest Engineering Solutions, Inc.**

7 Sterling Road
P.O. Box 125
N. Billerica, MA 01862
Contact: Mr. Richard Ferris
Phone: 978-667-7000
Fax: 978-667-3388
E-Mail: d.ferris@QES.com
URL: <http://www.QES.com>

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

**Australian Standards referred to by clauses in ACA
Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200037-0

Western Analytical Laboratory

3017 N. San Fernando Blvd., Suite A
Burbank, CA 91504-4704
Contact: Mr. Mike Maladzhikyan
Phone: 818-845-7766
Fax: 818-845-7742
E-Mail: wal@pacifinet.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 200039-0

TUV Telecom Services, Inc.

1775 Old Highway 8, Suite 107/108
St. Paul, MN 55112-1891
Contact: Mr. David A. Freemore
Phone: 651-639-0775
Fax: 651-639-0873
E-Mail: dfreemore@us.tuv.com
URL: <http://www.tuv.com>

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

**ACA Technical Standards as determined under the
Telecommunications Act of 1997**

12/T47 ACA TS-013

12/T48 ACA TS-014

12/T49 ACA TS-016

Federal Communications Commission (FCC) Methods

12/T01 Terminal Equipment Network Protection
Standards, FCC Method - 47 CFR Part 68 -
Analog and Digital

12/T01a 68.302 (Par. c,d,e,f) Environmental simulation;

68.304 Leakage current limit.; 68.306

Hazardous voltage limit.; 68.308 Signal power
limit.; 68.310 Longitudinal balance limit.;
68.312 On-hook impedance limit.; 68.314
Billing protection

12/T01b 68.316 Hearing Aid Compatibility: technical
standards

12/T01c 68.302 Environmental simulation (Par. a,b)

NVLAP LAB CODE 200040-0

**LG Electronics, Inc., Quality and Reliability
Center**

36, Munlae-dong, 6-ga Youngdungpo-gu
Seoul 150-096
KOREA
Contact: Mr. Tae-Yeong Oh
Phone: 82 2 630 3008
Fax: 82 2 630 3050
E-Mail: tyojlight@lge.co.kr

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200041-0

Kingston Environmental Laboratory

1600 S.W. Market
Lee's Summit, MO 64081-3109
Contact: Ms. Melissa McKee
Phone: 816-246-8746
Fax: 816-525-5027
E-Mail: biobugs@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200044-0

U.S. Army Center for Health Promotion and Preventive Medicine

Attn: MCHB-TS-L, Bldg. E-2100
5158 Blackhawk Road
Aberdeen Proving Ground, MD 21010-5422
Contact: Ms. Rosemary Gaffney
Phone: 410-436-2208
Fax: 410-436-8315

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200045-0

Willamette Industries, Inc. West Coast Development Lab

9130 SW Pioneer Court, Suite D
Wilsonville, OR 97070
Contact: Mr. Gary Vosler
Phone: 503-682-4995
Fax: 503-682-4545
E-Mail: gvosler@wii.com

Commercial Products Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Paper and Related Products

09/E02	TAPPI T402-OM; ASTM D685
09/E03	TAPPI T403-OM; ASTM D774
09/E05	TAPPI T410-OM
09/E06	TAPPI T411-OM
09/E08	TAPPI T414-OM
09/E11	TAPPI T452-OM
09/E17	TAPPI T494-OM
09/E20	TAPPI T809-OM
09/E21	TAPPI T818-OM
09/E22	TAPPI T807-OM
09/E25	TAPPI T826-PM
09/E27	TAPPI TM 833-PM
09/E29	TAPPI T476-OM
09/E31	TAPPI T838-PM
09/H01	ASTM D642; TAPPI T804-OM
09/H24	TAPPI T802-OM
09/H28	TAPPI T810-OM
09/H29	TAPPI T811-OM
09/H30	TAPPI T821-OM
09/H31	TAPPI T825-PM

NVLAP LAB CODE 200046-0

Stork-Twin City Testing Corporation

662 Cromwell Avenue
St. Paul, MN 55114-1776
Contact: Mr. Richard S. Alberg
Phone: 651-659-7528
Fax: 651-659-7229
E-Mail: dickalberg@email.msn.com
URL: http://www.twincitytesting.com

Acoustical Testing Services

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

08/P03	ASTM C423 (ISO 354)
08/P06	ASTM E90 (ISO 140, Part 3)
08/P10	ANSI S12.31 (ISO 3741)
08/P31	ASTM E336
08/P32	ASTM E1007
08/P37	ASTM E966

Thermal Insulation Materials

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Mass, Density, and Dimensional Stability

01/D03	ASTM C209 (Sec. 6)
01/D04	ASTM C209 (Sec. 13)
01/D05	ASTM C209 (S. 13) by D1037 (S. 100-106)
01/D06	ASTM C209 (S. 14) by D1037 (S. 107-110)
01/D07	ASTM C272
01/D18	ASTM D1622
01/D19	ASTM D2126

Related Material Properties

01/V04	ASTM E96
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Strength

01/S02	ASTM C203
01/S03	ASTM C209 (Sec. 9)
01/S04	ASTM C209 (Sec. 10)
01/S05	ASTM C209 (Sec. 11)
01/S06	ASTM C209 (Sec. 12)
01/S11	ASTM D1621 (Proc. A)

Thermal Resistance

01/T06	ASTM C518
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NVLAP LAB CODE 200047-0

National Econ Corporation

4515 Poplar Avenue, Suite 410
Memphis, TN 38117
Contact: Mr. Chester V. Ervin
Phone: 901-761-5431
Fax: 901-767-2466

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200049-0

Intertek Testing Services NA, Inc.

7435 4th Street North
Oakdale, MN 55128
Contact: Mr. Albert Garlatti
Phone: 651-730-1188
Fax: 651-730-1282
E-Mail: agarlatti@itsqs.com
URL: <http://www.worldlab.com>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200050-0

Cooper Lighting - Metalux Research Laboratories

1101 Southerfield Road
P.O. Box 1207
Americus, GA 31709-1207
Contact: Mr. Gregory B. Bacon
Phone: 912-924-8000
Fax: 912-924-5507
E-Mail: gbacon@cooperlighting.com
URL: <http://www.cooperlighting.com/metalux/>

Energy Efficient Lighting Products

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Luminaires (Lighting Fixtures)

22/F04 IES LM-41

NVLAP LAB CODE 200051-0

AES International

1004 Calle Labra, 2nd Floor
R.H. Todd Avenue
Santurce, PR 00907
Contact: Mr. Ady Padan
Phone: 787-722-0220
Fax: 787-724-5788
E-Mail: YOTA1@msn.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200052-0

Dell Regulatory Test Laboratories

One Dell Way
Round Rock, TX 78682
Contact: Mr. David Staggs
Phone: 512-728-3751
Fax: 512-728-3653
E-Mail: David_Staggs@us.dell.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

Acoustical Testing Services

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

08/P24 ANSI S12.10 (ISO 7779)

08/P40 ISO 9296

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

08/P41 ECMA 74
08/P42 ECMA 109

NVLAP LAB CODE 200053-0**A.O. Smith (Lexington) Engineering Laboratory**

669 Natchez Trace Drive
Lexington, TN 38351-4198
Contact: Mr. Hugh Fesmire
Phone: 901-967-4713
Fax: 901-968-4164
E-Mail: HFesmire@aosmith.com

Efficiency of Electric Motors

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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24/M01	IEEE 112, Method B
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NVLAP LAB CODE 200054-0**Micro Analytical Laboratories, Inc.**

1786 - 18th Street, Suite A
San Francisco, CA 94107-2343
Contact: Mr. Frank Raviola
Phone: 510-653-0824
Fax: 510-653-1361
E-Mail: microlab@labmicro.com
URL: <http://www.labmicro.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200055-0**Celestica International Inc.**

844 Don Mill Road
North York, Ontario M3C 1V7
CANADA
Contact: Mr. Kenneth Long
Phone: 416-448-4937
Fax: 416-448-4924
E-Mail: klong@celestica.com
URL: <http://www.celestica.com>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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*ACA Technical Standards as determined under the
Telecommunications Act of 1997*

12/T41	ACA TS-001
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*Australian Standards referred to by clauses in ACA
Technical Standards*

12/T50	AS/NZS 3260
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NVLAP LAB CODE 200056-0**EMSL Analytical, Inc.**

440 Lawrence Bell Drive, Suite #2
Williamsville, NY 14221
Contact: Mr. Kenneth J. Najuch
Phone: 716-631-5887
Fax: 716-631-7693
E-Mail: knajuch@emsl.com
URL: <http://www.emsl.com/>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200057-0**Curtis-Straus LLC**

527 Great Road
Littleton, MA 01460
Contact: Mr. Jon D. Curtis
Phone: 978-486-8880
Fax: 978-486-8828
E-Mail: jdc@curtis-straus.com
URL: <http://www.curtis-straus.com>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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*ACA Technical Standards as determined under the
Telecommunications Act of 1997*

12/T41	ACA TS-001
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*Australian Standards referred to by clauses in ACA
Technical Standards*

12/T50	AS/NZS 3260
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12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions
12/T01	Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
12/T01a	68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection
12/T01b	68.316 Hearing Aid Compatibility: technical standards

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology
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equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200058-0

Compaq Computer Corp. Emissions Control Lab

M/C 060607
P.O. Box 692000
Houston, TX 77070-2000
Contact: Mr. Steve Ortmann
Phone: 281-514-4897
Fax: 281-514-8029
E-Mail: Steve.Ortmann@Compaq.Com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

**ACA Technical Standards as determined under the
Telecommunications Act of 1997**

12/T41 ACA TS-001

**Australian Standards referred to by clauses in ACA
Technical Standards**

12/T50 AS/NZS 3260

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

12/T01 Terminal Equipment Network Protection
Standards, FCC Method - 47 CFR Part 68 -
Analog and Digital

12/T01a 68.302 (Par. c,d,e,f) Environmental simulation;
68.304 Leakage current limit.; 68.306
Hazardous voltage limit.; 68.308 Signal power
limit.; 68.310 Longitudinal balance limit.;
68.312 On-hook impedance limit.; 68.314
Billing protection

12/T01b 68.316 Hearing Aid Compatibility: technical
standards

12/T01c 68.302 Environmental simulation (Par. a,b)

**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of

measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200059-0

Northwest EMC, Inc.

22975 NW Evergreen Parkway, Suite 400
Hillsboro, OR 9712497132
Contact: Mr. Dean Ghizzone
Phone: 503-844-4066
Fax: 503-844-3826
E-Mail: dghizzone@nwemc.com
URL: http://www.nwemc.com

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 200061-0

Rhein Tech Laboratories, Inc.

360 Herndon Parkway, Suite #1400
Herndon, VA 20170-4824
Contact: Mr. Bruno Clavier
Phone: 703-689-0368
Fax: 703-689-2056
E-Mail: belavier@rheintech.com
URL: <http://www.rheintech.com>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

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Australian Standards referred to by clauses in ACA

Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
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12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
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12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment
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NVLAP LAB CODE 200062-0

Professional Testing (EMI), Inc.

1601 FM 1460, Suite B
Round Rock, TX 78664
Contact: Mr. Jeffrey A. Lenk
Phone: 512-244-3371
Fax: 512-244-1846
E-Mail: jlenk@ptitest.com
URL: <http://www.ptitest.com>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

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Australian Standards referred to by clauses in ACA

Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
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12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
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12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment
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NVLAP LAB CODE 200063-0

Compatible Electronics, Inc.

2337 Troutdale Drive
Agoura, CA 91301
Contact: Mr. Jeff Klinger
Phone: 818-597-0600
Fax: 818-597-1187
E-Mail: jklinger@celectronics.com
URL: <http://celectronics.com>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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ACA Technical Standards as determined under the

Telecommunications Act of 1997

12/T41	ACA TS-001
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12/T42	ACA TS-002
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Australian Standards referred to by clauses in ACA

Technical Standards

12/T50	AS/NZS 3260
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12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
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12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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12/T01	Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
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12/T01a	68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit; 68.306 Hazardous voltage limit; 68.308 Signal power limit; 68.310 Longitudinal balance limit; 68.312 On-hook impedance limit; 68.314 Billing protection
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12/T01b	68.316 Hearing Aid Compatibility: technical standards
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International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200065-0

Compliance Eng. Svces, Inc., Compliance Certification Services

1366 Bordeaux Drive
Sunnyvale, CA 94089-1005
Contact: Mr. Scott Wang
Phone: 408-752-8166 x116
Fax: 408-752-8168

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200066-0

Washington Laboratories, Ltd.

7560 Lindbergh Drive
Gaithersburg, MD 20879
Contact: Mr. Michael F. Violette
Phone: 301-417-0220
Fax: 301-417-9069
E-Mail: mikev@wll.com
URL: http://www.wll.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

NVLAP LAB CODE 200067-0

JMR Environmental Services Inc.

3491 Kurtz Street
San Diego, CA 92110
Contact: Mr. Craig Sobotka
Phone: 619-222-0544
Fax: 619-224-7260

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200068-0

EMC Compliance Mgmt Group, dba Turntech Scientific & Instr., Inc.

670 National Avenue
Mountain View, CA 94043-2244
Contact: Mr. Paul F. Chen
Phone: 650-988-0900
Fax: 650-988-6647
E-Mail: pfchen@emclab2000.com
URL: http://www.emclab2000.com

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

FCC Test Methods

Accreditation Valid Through: December 31, 2000

*NVLAP**Code Designation**Australian Standards referred to by clauses in ACA**Technical Standards*

12/T51 AS/NZS 3548

*Federal Communications Commission (FCC) Methods*12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200069-0**Elliott Laboratories, Inc.**

684 West Maude Avenue

Sunnyvale, CA 94086-3518

Contact: Mr. Thomas H. Parker

Phone: 408-245-7800 x236

Fax: 408-245-3499

E-Mail: tparker@elliottlabs.comURL: <http://www.elliottlabs.com>**FCC Test Methods**

Accreditation Valid Through: September 30, 2000

*NVLAP**Code Designation**ACA Technical Standards as determined under the
Telecommunications Act of 1997*

12/T41 ACA TS-001

*Australian Standards referred to by clauses in ACA**Technical Standards*

12/T50 AS/NZS 3260

12/T51 AS/NZS 3548

*Federal Communications Commission (FCC) Methods*12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*12/CIS22 IEC/CISPR 22:1993: Limits and methods of
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characteristics of information technology
equipment12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200070-0**EMC Kashima Corporation**

1614 Mushihata, Omigawa-machi

Katori-gun,

Chiba-ken 289-0341

JAPAN

Contact: Mr. Masaru Nakayama

Phone: 478-82-0963

Fax: 478-82-3373

E-Mail: emc@emc-kashima.co.jp**FCC Test Methods**

Accreditation Valid Through: June 30, 2000

*NVLAP**Code Designation**Australian Standards referred to by clauses in ACA**Technical Standards*

12/T51 AS/NZS 3548

*Federal Communications Commission (FCC) Methods*12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200071-0

Apple Computer, Inc., EMC Compliance Laboratory

1 Infinite Loop, Mailstop 26-A
Cupertino, CA 95014-2084
Contact: Mr. Robert Steinfeld
Phone: 408-974-2618
Fax: 408-862-5061
E-Mail: steinfeld@apple.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200076-0

Instrument Specialties Co., Inc.

P.O. Box 650, Shielding Way
Delaware Water Gap, PA 18327-0136
Contact: Mr. James B. Thomson
Phone: 570-424-8510
Fax: 570-421-4227
E-Mail: jim_thomson@instr.com
URL: http://www.instrumentspecialties.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200077-0

Taiwan Tokin EMC Eng. Corp.

9th Fl., No. 38, Fushing N. Rd.
Taipei
TAIWAN
Contact: Mr. Jackie Deng
Phone: 886-2-26092133
Fax: 886-2-26099303
E-Mail: ttemc@tpts1.seed.net.tw

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
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INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200078-0**Compaq Computer Corp. EMC Test Facility**

301 Rockrimmon Blvd. South
Colorado Springs, CO 80919-2398
Contact: Mr. Dennis Laurence
Phone: 719-548-2080
Fax: 719-548-2070
E-Mail: dennis.laurence@compaq.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital
 Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
 to 30 MHz
12/F01b Radiated Emissions

**International Special Committee on Radio Interference
(CISPR) Methods**

- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of
 measurement of radio disturbance
 characteristics of information technology
 equipment, Amendment 1:1995, and
 Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
 Measurement of Radio Interference
 Characteristics of Information Technology
 Equipment

NVLAP LAB CODE 200079-0**Sporton International, Inc.**

6F, No. 106, Sec. 1, Hsin Tai Wu Road
Hsi Chih
Taipei Hsien
TAIWAN
Contact: Mr. W. L. Huang
Phone: 886-2-2696-2468
Fax: 886-2-2696-2255
E-Mail: kathylin@sporton.com.tw

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

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**Australian Standards referred to by clauses in ACA
Technical Standards**

- 12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital
 Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
 to 30 MHz

12/F01b Radiated Emissions
**International Special Committee on Radio Interference
(CISPR) Methods**

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of
 measurement of radio disturbance
 characteristics of information technology
 equipment

NVLAP LAB CODE 200080-0**Continental Envirotech, Inc.**

646 West Broadway Road, Suite 401
Mesa, AZ 85210-1212
Contact: Mr. Stephen P. Kovac
Phone: 602-844-1710
Fax: 602-844-1752

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200081-0**Advanced Energy, Industrial Energy Laboratory**

909 Capability Drive, #2100
Raleigh, NC 27606-3870
Contact: Mr. Jeffrey L. Farlow
Phone: 919-857-9013
Fax: 919-832-2696
E-Mail: jfarlow@advancedenergy.org
URL: <http://www.advancedenergy.org>

Efficiency of Electric Motors

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

- 24/M01 IEEE 112, Method B

NVLAP LAB CODE 200082-0**PDE Laboratories**

950 Calle Negocio
San Clemente, CA 92673-6201
Contact: Mr. Dave Farrant
Phone: 949-361-9189
Fax: 949-361-9597
E-Mail: testsvcs@pdelabs.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

**Australian Standards referred to by clauses in ACA
Technical Standards**

- 12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital
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12/F01a Conducted Emissions, Power Lines, 450 KHz

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12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200083-0**Testwell Laboratories, Inc./Testwell Industries, Inc.**

47 Hudson Street
Ossining, NY 10562
Contact: Mr. V. Reddy Kancharla
Phone: 914-762-9000
Fax: 914-762-9638

URL: <http://www.testwellcraig.com>

Construction Materials Testing

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Admixtures

02/A35	ASTM C233
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Aggregates

02/A03	ASTM C29
02/A04	ASTM C40
02/A06	ASTM C88
02/A07	ASTM C117
02/A09	ASTM C127
02/A10	ASTM C128
02/A11	ASTM C131
02/A12	ASTM C136
02/A13	ASTM C142
02/A15	ASTM D75
02/A44	ASTM C566
02/A46	ASTM C535

Cement

02/A17	ASTM C109
02/A18	ASTM C114
02/A21	ASTM C157
02/A22	ASTM C183
02/A26	ASTM C191
02/A31	ASTM C305

Concrete

02/A01	ASTM C39
02/A02	ASTM C617
02/A40	ASTM C78
02/A41	ASTM C192

02/A43	ASTM C1064
02/A45	ASTM C42
02/A48	ASTM C856
02/G01	ASTM C31/C172/C143/C138/C231

Road and Paving Materials

02/M08	ASTM D979
02/M12	ASTM D1559
02/M19	ASTM D2172
02/M24	ASTM D2041
02/M25	ASTM D2726

Soil and Rock

02/L02	ASTM D422
02/L04	ASTM D698
02/L05	ASTM D854
02/L06	ASTM D1140
02/L07	ASTM D1556
02/L08	ASTM D1557
02/L13	ASTM D2216
02/L16	ASTM D2487
02/L17	ASTM D2488
02/L20	ASTM D4318
02/L23	ASTM D2922
02/L24	ASTM D2974
02/L25	ASTM D3017

Standard Practices

02/A38	ASTM E329
02/A39	ASTM C1077

Steel Materials

02/S01	ASTM A370 (Sec. 5-13)/E8
02/S07	ASTM E709
02/S08	ASTM E165

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200084-0**Windermere Info. Tech. Sys.****Military/Commercial Compliance Lab.**

401 Defense Highway
Annapolis, MD 21401
Contact: Mr. John P. Kehs, Jr.
Phone: 410-266-1830
Fax: 410-266-1751/1725
E-Mail: jkehs@witsusa.com
URL: <http://www.witsusa.com/services/test/com.html>

FCC Test Methods

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Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz

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12/F01b Radiated Emissions
International Special Committee on Radio Interference (CISPR) Methods
12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200085-0**Global EMC Standard Tech. Corp.**

No. 3, Pau-Tou-Tsuo Valley
Chia-Pau Tsuen, Lin Kou Hsiang
Taipei County
TAIWAN
Contact: Mr. Raymond Chang
Phone: 886-2-26035321
Fax: 886-2-26035325
E-Mail: GESTEK@MS5.HINET.NET

FCC Test Methods

Accreditation Valid Through: September 30, 2000

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*Australian Standards referred to by clauses in ACA**Technical Standards*

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

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12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200087-0**Rogers Labs, Inc.**

4405 W. 259th Terrace
Louisburg, KS 66053
Contact: Mr. Scot D. Rogers
Phone: 913-837-3214
Fax: 913-837-3214
E-Mail: rogerslb@sound.net

FCC Test Methods

Accreditation Valid Through: March 31, 2000

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12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

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12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200088-0**Toshiba/Houston Test Laboratory**

13131 W. Little York Road
Houston, TX 77041-5807
Contact: Mr. Willard Gray
Phone: 713-466-0277
Fax: 713-466-8773

Efficiency of Electric Motors

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

24/M01 IEEE 112, Method B

NVLAP LAB CODE 200089-0

Electronic Compliance Laboratories, Inc.

1249 Birchwood Drive
Sunnyvale, CA 94089
Contact: Mr. Chris Byleckie
Phone: 408-747-1490
Fax: 408-747-1495
E-Mail: chris@eclabs.com
URL: <http://www.eclabs.com>

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Federal Communications Commission (FCC) Methods

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International Special Committee on Radio Interference (CISPR) Methods

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12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200090-0

ProScience Analytical Services, Inc.

22 Cummings Park
Woburn, MA 01801-2122
Contact: Mr. Adrian Stanca
Phone: 781-935-3212
Fax: 781-932-4857
E-Mail: PASI96@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200091-0

IBM Rochester EMC Lab

3605 North Highway 52, Department 515
Rochester, MN 55901-7829
Contact: Mr. John S. Maas
Phone: 507-253-2426
Fax: 507-253-1317
E-Mail: johnmaas@us.ibm.com

FCC Test Methods

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12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200092-0

EMCE Engineering, Inc.

44366 South Grimmer Boulevard
Fremont, CA 94538-6385
Contact: Mr. Stephen A. Sawyer
Phone: 510-490-4307
Fax: 510-490-3441
E-Mail: EMCEEngrg@aol.com

FCC Test Methods

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12/T01	Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
12/T01a	68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection
12/T01b	68.316 Hearing Aid Compatibility: technical standards
12/T01c	68.302 Environmental simulation (Par. a,b)

NVLAP LAB CODE 200093-0**UltraTech Engineering Labs Inc.**

3000 Bristol Circle
Oakville, Ontario L6H 6G4
CANADA
Contact: Mr. Victor Kee
Phone: 905-829-1570
Fax: 905-829-8050
E-Mail: vhk.ultratech@sympatico.ca
URL: <http://www.ultratech-labs.com>

FCC Test Methods

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12/F01b Radiated Emissions

International Special Committee on Radio Interference***(CISPR) Methods***

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200094-0**EMC International, Inc.**

762 Park Avenue
Youngsville, NC 27596
Contact: Mr. Dale S. Albright
Phone: 919-554-0901
Fax: 919-556-2043
E-Mail: dalea@emclabs.com
URL: <http://www.emclabs.com>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

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12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200095-0**Chopra-Lee, Inc.**

1815 Love Road
P.O. Box 567
Grand Island, NY 14072-0567
Contact: Mr. Paul S. Chopra
Phone: 716-773-7625
Fax: 716-773-7624
E-Mail: pschopra@msn.com
URL: <http://www.chopra-lee-inc.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200096-0

Key Tronic Corp.

4424 N. Sullivan Road
P.O. Box 14687
Spokane, WA 99214-0687
Contact: Mr. James L. Adams
Phone: 509-927-5541
Fax: 509-927-5258

FCC Test Methods

Accreditation Valid Through: March 31, 2000

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**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200097-0

PEP Testing Laboratory

12-3 FL. No. 27-1, Lane 169, Kang Ning St
Hsi-Chi
Taipei Hsien
TAIWAN
Contact: Mr. Peter Kao
Phone: 886-2-2692-2097
Fax: 886-2-2695-6236
E-Mail: peplab@top2.ficnet.net.tw

FCC Test Methods

Accreditation Valid Through: June 30, 2000

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**International Special Committee on Radio Interference
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12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
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NVLAP LAB CODE 200098-0

Nortel Networks BVW Lab

250 Sidney Street
Belleville, Ontario K8P 3Z3
CANADA
Contact: Mrs. Seham Fawzy
Phone: 613-966-0100 x3145
Fax: 613-967-5364
E-Mail: sfawzy@nortelnetworks.com

FCC Test Methods

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**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200099-0

Spectrum Research & Testing Laboratory, Inc.

No. 101-10, Ling 8, Shan-Tong Li
Chung-Li, Taoyuan
TAIWAN
Contact: Mr. Cheng-Yang Ho
Phone: 011-886-3-4987684
Fax: 011-886-3-4986528
E-Mail: srlab@ms17.hinet.net
URL: <http://www.srlab.com>

FCC Test Methods

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12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200101-0

Fountain Compliance Laboratory

50 Randolph Road
Somerset, NJ 08873-1240
Contact: Mr. Wei Li
Phone: 732-560-9010
Fax: 732-560-9173
E-Mail: lee@ftn.com
URL: <http://www.fcl.com>

FCC Test Methods

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12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200102-0

Advance Data Technology Corporation

No. 47, 14 Ling, Chia Pau Tsuen,
Lin Kou Hsiang
Taipei Hsien
TAIWAN
Contact: Mr. Harris W. Lai
Phone: 886-2-6032180
Fax: 886-2-6022943
E-Mail: harris@mail.adt.com.tw

FCC Test Methods

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12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200104-0

Asbestos TEM Laboratories, Inc.

952 Greg Street
Sparks, NV 89431
Contact: Mr. R. Mark Bailey
Phone: 510-528-0108
Fax: 510-528-0109
E-Mail: MBaileyASB@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200107-0

Toshiba Corp., Ome Operations

2-9 Suehiro-cho
Ome Tokyo 198-8710
JAPAN
Contact: Mr. Hiroshi Kiguchi
Phone: 81-428-33-1170
Fax: 81-428-30-7911

FCC Test Methods

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12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200109-0

A-Pex International Co., Ltd. Yokowa Laboratory

108 Yokowa-cho, Ise-shi
Mie-ken 516-1106
JAPAN
Contact: Mr. Michihisa Yamazaki
Phone: 81-596-24-6717
Fax: 81-596-27-5631
E-Mail: yamazaki@a-pex.co.jp
URL: <http://www.a-pex.co.jp>

FCC Test Methods

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12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

NVLAP LAB CODE 200111-0

TUV Rheinland of North America, Inc.

12 Commerce Road
Newtown, CT 06470-1607
Contact: Mr. Timothy M. Dwyer
Phone: 203-426-0888 x104
Fax: 203-270-8883
E-Mail: tdwyer@us.tuv.com
URL: <http://www.us.tuv.com>

FCC Test Methods

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NVLAP

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**International Special Committee on Radio Interference
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12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200112-0

IBM Austin EMC

11400 Burnet Road, M.S. 4469
Austin, TX 78758-3493
Contact: Mr. Jerry W. Scibielski
Phone: 512-838-5816
Fax: 512-838-7101
E-Mail: scib@us.ibm.com

FCC Test Methods

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- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200114-0**Cisco Systems, Inc.**

170 West Tasman Drive
San Jose, CA 95134-1706
Contact: Mr. Mark King
Phone: 408-527-5014
Fax: 408-526-4184
E-Mail: markking@cisco.com
URL: <http://www.cisco.com>

FCC Test Methods

Accreditation Valid Through: March 31, 2000

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- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200116-0**Nemko EESI, Inc.**

11696 Sorrento Valley Road, Suite F
San Diego, CA 92121
Contact: Mr. Harry H. Hodes
Phone: 858-259-4952
Fax: 858-259-7170
E-Mail: hodes@eesi.com
URL: <http://www.eesi.com>

FCC Test Methods

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- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200117-0**Universal Compliance Laboratories**

775 B Mabury Road
San Jose, CA 95133
Contact: Mr. Bob Cole
Phone: 408-453-8744
Fax: 408-453-8747
E-Mail: bob_ucl@msn.com
URL: <http://www.usl1.com>

FCC Test Methods

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Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
*International Special Committee on Radio Interference
(CISPR) Methods*
12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200118-0**Electronic Research & Service Organization/ITRI**

K500 ERSO/ITRI 195-4, Sec. 4
Chung Hsing Road
Chutung Hsinchu 310
TAIWAN
Contact: Mr. Laurence L.S. Chang
Phone: 886-3-5917028
Fax: 886-3-5820443
E-Mail: lsc@erso.itri.org.tw

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200119-0**Garwood Laboratories, Inc.**

565 Porter Way
Placentia, CA 92870-6454
Contact: Mr. Robert Lynch
Phone: 714-572-2027
Fax: 714-572-2025
E-Mail: bobl@garwoodtestlabs.com
URL: <http://www.garwoodtestlabs.com>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

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Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
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12/F01b Radiated Emissions

*International Special Committee on Radio Interference
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12/CIS22 IEC/CISPR 22:1993: Limits and methods of
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12/CIS22a IEC/CISPR 22:1993: Limits and methods of
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equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200120-0**Chemitox EMC Research, Inc.**

14979, Egusa, Sudama-cho, Kitakoma-gun
Yamanashi-ken 408-0103
JAPAN
Contact: Mr. Kohichi Nakayama
Phone: 81-551-42-4411
Fax: 81-551-20-6002
E-Mail: chemi_js@comlink.ne.jp

FCC Test Methods

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Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
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12/F01b Radiated Emissions

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12/CIS22 IEC/CISPR 22:1993: Limits and methods of
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12/CIS22a IEC/CISPR 22:1993: Limits and methods of
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Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200121-0**Cabletron Systems, Inc.**

35 Industrial Way
P.O. Box 5005
Rochester, NH 03867-5005
Contact: Mr. John Ballew
Phone: 603-337-5222
Fax: 603-337-5163
E-Mail: jballew@ctron.com

FCC Test Methods

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*Australian Standards referred to by clauses in ACA**Technical Standards*

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

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to 30 MHz

12/F01b Radiated Emissions

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(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
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12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200124-0**White Environmental Consultants Inc.**

731 I Street, Suite 201
Anchorage, AK 99501
Contact: Mr. Sean Fitzgerald
Phone: 907-258-8661
Fax: 907-258-8662
E-Mail: Whiteenv@customcpu.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200125-0**Paradyne Corporation**

8545 126th Avenue N.
P.O. Box 2826
Largo, FL 33773-2826
Contact: Mr. Tom Wissman
Phone: 727-530-2775
Fax: 727-532-5552
E-Mail: twissman@eng.paradyne.com

FCC Test Methods

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*Australian Standards referred to by clauses in ACA**Technical Standards*

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

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12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200126-0**Walker Bolt Manufacturing Co.**

10202 Airline Drive
P.O. Box 38502
Houston, TX 77238-8502
Contact: Mr. Tim Malone
Phone: 281-448-4321
Fax: 281-999-1979

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

*Chemical Analysis**Optical emission spectrochemical analysis*

FA/457 ASTM E415

*Dimensional Inspection**Dimensions of ISO grade A and B fasteners*

FA/487 DIN 267, Part 5

Dimensions of ISO grade C fasteners

FA/488 DIN 267, Part 5

*Dimensions of general purpose fasteners and
high-volume machine assembly fasteners*

FA/403 ANSI/ASME B18.18.1M

FA/486 MIL-STD-120 (W/ Notice dtd 9 SEP 63)

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/405 ANSI/ASME B18.18.3M
FA/406 ANSI/ASME B18.18.4M
FA/493 MIL-STD-120 (W/ Notice dtd 9SEP 63)

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M
FA/380 FED-STD-H28/20

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M
FA/382 FED-STD-H28/20

External thread parameters - system 23

FA/385 ANSI/ASME B1.3M
FA/386 FED-STD-H28/20

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M
FA/392 FED-STD-H28/20

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M
FA/394 FED-STD-H28/20

Internal thread parameters - system 23

FA/397 ANSI/ASME B1.3M
FA/398 FED-STD-H28/20

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/265 ASTM A370 Sec. A3.2.1.4
FA/266 ASTM F606 Sec. 3.4.1-3.4.3
FA/267 ASTM F606M Sec. 3.4.1-3.4.3
FA/273 SAE J429

Brinell hardness of fasteners

FA/185 ASTM A370 Sec. 16
FA/186 ASTM E10
FA/491 ASTM E18

Charpy impact (v-notch) testing

FA/211 ASTM A370 Sec. 19-28
FA/212 ASTM E23

Hardness preparation

FA/464 ASTM F606M
FA/482 ASTM F606

Microhardness of fasteners

FA/189 ASTM E384

Proof load of full-size externally threaded fasteners

FA/225 ASTM A370 Sec. A3.2.1.1-A3.2.1.3
FA/226 ASTM F606 Sec. 3.2.1-3.2.3
FA/228 ISO 898-1 Sec. 8.4
FA/229 SAE J429 Sec. 5.3
FA/467 ASTM F606M Sec. 3.2.1-3.2.3

Proof load of internally threaded fasteners (nuts)

FA/235 ASTM A370 Sec. A3.5.1
FA/236 ASTM F606 Sec. 4.2
FA/237 ASTM F606M Sec. 4.2
FA/239 ISO 898-2 Sec. 8.1
FA/241 SAE J995 Sec. 5.1

Rockwell hardness of fasteners

FA/196 ASTM A370 Sec. 18
FA/197 ASTM E18
FA/201 MIL-STD-1312-6

Tension testing of machined specimens from externally threaded fasteners

FA/278 ASTM A370
FA/279 ASTM F606
FA/280 ASTM F606M
FA/282 ISO 898-1
FA/283 SAE J429

Total extension at fracture of externally threaded fasteners

FA/285 ASTM F606
FA/286 ASTM F606M

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/492 ASTM E92

Wedge tensile strength of full-size threaded fasteners

FA/289 ASTM A370
FA/290 ASTM F606 Sec. 3.5
FA/291 ASTM F606M Sec. 3.5
FA/294 ISO 898-1 Sec. 8.5
FA/468 SAE J429 Sec. 5.5

Metallography

Decarburization and case depth measurement in fasteners

FA/324 ISO 898-1
FA/328 SAE J121
FA/483 ASTM A574 Sec. 12

Macroscopic examination of fasteners by etching

FA/484 ASTM E381

Nondestructive Inspection

Liquid penetrant inspection of fasteners

FA/367 ASTM E165
FA/370 MIL-STD-271
FA/371 MIL-STD-6866

Magnetic particle inspection of fasteners

FA/376 MIL-STD-271
FA/485 ASTM E1444

NVLAP LAB CODE 200129-0

AHD

92723 M-152
Dowagiac, MI 49047
Contact: Mr. Edmund (Ted) Chaffee
Phone: 616-424-7014
Fax: 616-424-7014
E-Mail: ahd@locallink.net
URL: <http://www.ahde.com>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
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12/F01a Conducted Emissions, Power Lines, 450 KHz

to 30 MHz
12/F01b Radiated Emissions
International Special Committee on Radio Interference (CISPR) Methods
12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200130-0

NASA-Lewis Research Center
21000 Brookpark Road, Mail Stop 6-4
Cleveland, OH 44135-3191
Contact: Ms. Priscilla Mobley
Phone: 216-433-8333
Fax: 216-433-8719
E-Mail: priscilla.a.mobley@lerc.nasa.gov

Bulk Asbestos Analysis (PLM)
Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 200131-0

Environmental Testing and Monitoring Services, Inc.
2425 Boward Parkway, Suite 107
Virginia Beach, VA 23454
Contact: Mr. Scott J. Eggleston
Phone: 757-498-7873
Fax: 757-498-7896

Bulk Asbestos Analysis (PLM)
Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 200132-0

USG Research-Systems Evaluation Laboratory
700 N. Highway 45
Libertyville, IL 60048-1296
Contact: Mr. Richard T. Kaczowski
Phone: 847-970-5255
Fax: 847-362-4871
E-Mail: rkaczowski@usgres.com

Acoustical Testing Services
Accreditation Valid Through: June 30, 2000

NVLAP
Code Designation
08/P03 ASTM C423 (ISO 354)
08/P06 ASTM E90 (ISO 140, Part 3)
08/P33 ASTM E1111
08/P34 ASTM E1414 (AMA-1-II-67)(ISO 140, Part 9)

NVLAP LAB CODE 200133-0

Electronics Testing Center, Taiwan
No.8, Lane 29, Wen-Ming Rd
Lo-Shan Tsun, Kui-shan Hsiang
Taoyuan Hsien 333
TAIWAN
Contact: Mr. Jing-Jung Hong
Phone: 886-03-328-0026 x272
Fax: 886-03-328-0034
E-Mail: hong@etc.org.tw

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Australian Standards referred to by clauses in ACA Technical Standards
12/T51 AS/NZS 3548
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12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions
International Special Committee on Radio Interference (CISPR) Methods
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12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200134-0

Marathon Electric - Wausau Engineering Lab.
100 East Randolph Street
P.O. Box 8003
Wausau, WI 54402-8003
Contact: Mr. Gene Sickler
Phone: 715-675-3311 x4155
Fax: 715-675-8039

Efficiency of Electric Motors
Accreditation Valid Through: December 31, 2000
NVLAP
Code Designation

24/M01 IEEE 112, Method B

NVLAP LAB CODE 200137-0

Philips Electronics Industries (TAIWAN) Ltd.

5, Tze Chiang I Road, Chungli Ind. Park
P.O. Box 123, Chungli
Chungli, Taoyuan
TAIWAN
Contact: Mr. Ronnie Yang
Phone: 886-2-454-9862
Fax: 886-3-454-9887
E-Mail: ronnie.yang@cli.ce.philips.com

FCC Test Methods

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NVLAP

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Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

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to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200138-0

Hewlett Packard, Product Test Lab, San Diego

16399 W. Bernardo Drive
San Diego, CA 92127-1899
Contact: Mr. John Hall
Phone: 619-655-8236
Fax: 619-655-5951
E-Mail: john_hall@HP.com
URL: http://john_hall@hp.com

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance

characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200139-0

PB Fasteners

1700 W. 132nd Street
P.O. Box 1157
Gardena, CA 90249-0157
Contact: Mr. Merle Oglesby
Phone: 310-323-6222
Fax: 310-329-4685

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Dimensional Inspection

*Dimensions of fasteners - hexagon and double hexagon
(12 point) and spline sockets*

FA/539 SAE AS 870

FA/540 MIL-STD-33787

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

FA/380 FED-STD-H28/20

FA/528 MIL-S-7742

FA/533 SAE AS 8879

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

FA/382 FED-STD-H28/20

FA/383 MIL-S-7742

FA/534 SAE AS 8879

External thread parameters - system 23

FA/385 ANSI/ASME B1.3M

FA/386 FED-STD-H28/20

FA/388 MIL-S-8879

FA/535 SAE AS 8879

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

FA/392 FED-STD-H28/20

FA/529 MIL-S-7742

FA/536 SAE AS 8879

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M

FA/394 FED-STD-H28/20

FA/395 MIL-S-7742

FA/537 SAE AS 8879

Internal thread parameters - system 23

FA/397 ANSI/ASME B1.3M

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

FA/398 FED-STD-H28/20

FA/399 MIL-S-7742

FA/538 SAE AS 8879

Surface texture

FA/439 ANSI/ASME B46.1

Mechanical and Physical Testing and Inspection**Adhesion of metallic coatings on fasteners**

FA/532 BMS 10-85M Sec. 8.2

Axial tensile strength of full-size threaded fasteners

FA/271 MIL-STD-1312-8

Double shear of externally threaded fasteners

FA/257 MIL-STD-1312-13

Fatigue of full-size threaded fasteners

FA/183 MIL-STD-1312-11

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/176 MIL-STD-1312-5

Magnetic permeability

FA/215 MIL-I-17214

Measurement of fastener coating thickness - eddy-current method

FA/150 FED TM STD NO. 151 Method 520.1

FA/152 MIL-STD-1312-12

Microhardness of fasteners

FA/189 ASTM E384

FA/193 MIL-STD-1312-6

Permanent set test of self-locking nuts

FA/109 MIL-N-25027

Recess strength test in both the installation and removal directions

FA/476 MIL-STD-1312-25

Reusability test of self-locking internally threaded fasteners

FA/522 MIL-STD-1312-31

Rockwell hardness of fasteners

FA/201 MIL-STD-1312-6

Rockwell superficial hardness of fasteners

FA/209 MIL-STD-1312-6

Salt spray testing of fasteners

FA/166 ASTM B117

FA/168 MIL-STD-1312-1

Single shear of externally threaded fasteners

FA/256 MIL-STD-1312-20

Stress rupture of fasteners

FA/262 MIL-STD-1312-10

Tension testing of machined specimens from externally threaded fasteners

FA/475 ASTM E8

FA/526 MIL-STD-1312-8

Test for embrittlement of metallic coated externally threaded fasteners

FA/525 MIL-STD-1312-5

Torque-out test

FA/523 MIL-STD-1312-31

Wedge tensile strength of full-size threaded fasteners

FA/295 MIL-STD-1312-8

Wrench torque test of externally wrenching nuts of spline and hexagon and double hexagon (1)

FA/524 MIL-STD-1312-31

Yield strength of full-size externally threaded fasteners

FA/303 MIL-STD-1312-8

Metallography**Decarburization and case depth measurement in fasteners**

FA/521 ASTM E384

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

Microscopic examination of fasteners by etching

FA/512 ASTM E407

Nondestructive Inspection**Liquid penetrant inspection of fasteners**

FA/527 ASTM E1417

Magnetic particle inspection of fasteners

FA/485 ASTM E1444

NVLAP LAB CODE 200140-0**TAO/TA2 EMC Laboratory**

255, JEN-HO Road Sec 2, Tachi

Taoyuan

TAIWAN

Contact: Mr. Steve Wang

Phone: 886-3-390-0000

Fax: 886-3-3908052

E-Mail: wang.steve@inventec.com.tw

FCC Test Methods

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NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

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12/CIS22b CNS 13438:1997: Limits and Methods of

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Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200141-0**MAC Fasteners, Inc.**

1544 S. Main Street
Ottawa, KS 66067
Contact: Mr. Donald C. Krenkel
Phone: 785-242-8812
Fax: 785-242-4616

Fasteners & Metals

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Dimensional Inspection**External thread parameters - system 21**

FA/380 FED-STD-H28/20

External thread parameters - system 22

FA/382 FED-STD-H28/20

Mechanical and Physical Testing and Inspection**Adhesion of metallic coatings on fasteners**

FA/541 QQ-P-416 Sec. 4.6.2

Axial tensile strength of full-size threaded fasteners

FA/799 NASM 1312-8

Double shear of externally threaded fasteners

FA/880 NASM 1312-13

Intergranular corrosion susceptibility in austenitic stainless steel fasteners - nitric acid

FA/173 ASTM A262 Sec. 15-21, Practice C

Measurement of fastener coating thickness - dimensional change method

FA/874 NASM 1312-12

Measurement of fastener coating thickness - microscopical method

FA/873 NASM 1312-12

Microhardness of fasteners

FA/877 NASM 1312-6

Recess strength test in both the installation and removal directions

FA/886 NASM 1312-25

Rockwell hardness of fasteners

FA/878 NASM 1312-6

Rockwell superficial hardness of fasteners

FB/1004 NASM 1312-6

Metallography**Decarburization and case depth measurement in fasteners**

FA/521 ASTM E384

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

Microscopic examination of fasteners by etching

FA/512 ASTM E407

Nondestructive Inspection**Liquid penetrant inspection of fasteners**

FA/527 ASTM E1417

Magnetic particle inspection of fasteners

FA/485 ASTM E1444

NVLAP LAB CODE 200142-0**Lockheed Martin Control Systems EMI****Laboratory**

600 Main Street
Johnson City, NY 13790-1888
Contact: Mr. Paul Heiland
Phone: 607-770-3771
Fax: 607-770-3922
E-Mail: paul.h.heiland.jr@lmco.co

MIL-STD-462 Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Conducted Emissions:

12/A01 MIL-STD-462 Method CE01

12/A06 MIL-STD-462 Method CE03

12/A12 MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01

12/B02 MIL-STD-462 Method CS02

12/B05 MIL-STD-462 Method CS06

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01

12/D02 MIL-STD-462 Method RE02

Radiated Susceptibility:

12/E02 MIL-STD-462 Method RS02

12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)

NVLAP LAB CODE 200143-0**Ivaco Rolling Mills, Chemistry Laboratory**

Highway 17, P.O. Box 322
L'Orignal Ontario K0B 1K0
CANADA
Contact: Mr. William V. Berry
Phone: 613-675-4671 x237
Fax: 613-675-6863
E-Mail: wberry@ivacorm.com

Fasteners & Metals

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NVLAP

Code Designation

Chemical Analysis

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

*Combustion analysis for carbon, sulfur, oxygen,
nitrogen, and hydrogen*

FA/455 ASTM E1019

Optical emission spectrochemical analysis

FA/457 ASTM E415

NVLAP LAB CODE 200144-0**Dexter Fastener Technologies, Inc.**

2110 Bishop Circle E.

Dexter, MI 48130

Contact: Mr. Mike Frazier

Phone: 734-426-5200

Fax: 734-425-5870

E-Mail: dextech@mindspring.com

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Chemical Analysis

Optical emission spectrochemical analysis

FA/457 ASTM E415

Dimensional Inspection

Dimensions of ISO grade A and B fasteners

FA/407 ISO 3269

FA/589 JIS B1071

FA/590 JIS B1091

Dimensions of fasteners - straightness

FA/423 ANSI/ASME B18.2.1

*Dimensions of general purpose fasteners and
high-volume machine assembly fasteners*

FA/404 ANSI/ASME B18.18.2M

*Dimensions of special purpose fasteners and fasteners for
highly specialized engineered ap*

FA/406 ANSI/ASME B18.18.4M

External thread parameters - ISO

FA/390 ISO 1502

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

FA/583 JIS B0251

FA/584 JIS B0252

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

External thread parameters - system 23

FA/385 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/270 ISO 898-1 Sec. 8.2

FA/273 SAE J429

FA/574 JIS B1051 Sec. 4.2.2

Fatigue of full-size threaded fasteners

FA/182 ISO 3800-1

FA/183 MIL-STD-1312-11

FA/570 JIS B1081

Hardness preparation

FA/482 ASTM F606

Head soundness testing

FA/614 ISO 898-1 Sec. 8.7

FA/615 JIS B1051 Sec. 4.2.6

*Measurement of fastener coating thickness - coulometric
method*

FA/567 ASTM B504

*Measurement of fastener coating thickness -
microscopical method*

FA/160 ASTM B487

Microhardness of fasteners

FA/189 ASTM E384

FA/191 ISO 6507-2

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

FA/228 ISO 898-1 Sec. 8.4

FA/229 SAE J429 Sec. 5.3

FA/573 JIS B1051 Sec. 4.2.4

Rockwell hardness of fasteners

FA/197 ASTM E18

FA/200 ISO 6508

FA/572 JIS Z2245

FA/616 JIS B1051 Sec. 4.3

FA/617 ISO 898-1 Sec. 8.9

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

Salt spray testing of fasteners

FA/166 ASTM B117

FA/568 ISO 9227

FA/569 JIS Z2371

*Tension testing of machined specimens from externally
threaded fasteners*

FA/279 ASTM F606 Sec. 3.6

FA/282 ISO 898-1

FA/283 SAE J429

FA/580 ISO 6892

FA/581 JIS B1051 Sec. 4.2

FA/582 JIS Z2241

Torque-tension of full-size threaded fasteners

FA/576 JIS B1084

*Total extension at fracture of externally threaded
fasteners*

FA/285 ASTM F606 Sec. 3.7

*Vickers hardness - test forces from 9.807 to 1176 N (1 to
120 kgf)*

FA/571 JIS Z2244

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

FA/294 ISO 898-1 Sec. 8.5

FA/468 SAE J429 Sec. 5.5

FA/575 JIS B1051 Sec. 4.2.3

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4

Metallography

Decarburization and case depth measurement in fasteners

FA/323 ASTM E1077

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

Microscopic examination of fasteners by etching

FA/512 ASTM E407

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

FA/359 ISO 6157-1

NVLAP LAB CODE 200145-0

Neutron Engineering Inc.

1Fl. No. 20, Alley 50, Lane 119

Dong Hwu Road, P.O. Box 6-158 Nei Hwu

Taipei

TAIWAN

Contact: Mr. George Yao

Phone: 886-2-26336872

Fax: 886-2-26334578

E-Mail: g.yao@neutron.com.tw

URL: http://www.neutron.com.tw

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200147-0

Electro Magnetic Test, Inc.

1547 Plymouth Street

Mountain View, CA 94043

Contact: Mr. Jay Gandhi

Phone: 650-965-4000

Fax: 650-965-3000

E-Mail: Jgemt@aol.com

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA
Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

12/T01 Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital

12/T01a 68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection

12/T01b 68.316 Hearing Aid Compatibility: technical standards

12/T01c 68.302 Environmental simulation (Par. a,b)

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200148-0

Republic Technologies International, Franklin Chemical Laboratory

Franklin Chemical Laboratory

1001 Main Street, Gate #3

Johnstown, PA 15909

Contact: Mr. Alan K. O'Donnell

Phone: 814-533-7333

Fax: 814-533-7319

E-Mail: alanod@prodigy.net

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Chemical Analysis

Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen

FA/455 ASTM E1019

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

Optical emission spectrochemical analysis

FA/457 ASTM E415

Solution chemical analysis

FA/531 ASTM E663

NVLAP LAB CODE 200151-0

Cosmos Corporation

319 Akeno, Obata-cho
Watarai-gun Mie 519-0501
JAPAN

Contact: Mr. Kay Hamaguchi

Phone: 81-596-37-0190

Fax: 81-596-37-3609

E-Mail: cosmos@mint.or.jp

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
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12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 200152-0

InFocus Systems, Inc.

27700B SE Parkway Avenue
Wilsonville, OR 97070-9215

Contact: Mr. Don Rhodes

Phone: 503-685-8588

Fax: 503-685-8531

E-Mail: don.rhodes@infocus.com

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
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12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
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NVLAP LAB CODE 200153-0

MacLean Fasteners - QC Laboratory

1000 Allanson Road
Mundelein, IL 60060

Contact: Ms. Charlotte Kotowski

Phone: 847-566-0010 x3521

Fax: 847-949-0285

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Dimensional Inspection**Dimensions of ISO grade A and B fasteners**

FA/408 ISO 4759-1

Dimensions of ISO grade C fasteners

FA/410 ISO 4759-1

Dimensions of fasteners - gaging for slotted nuts

FA/417 ANSI/ASME B18.2.2

FA/418 ANSI/ASME B18.2.4.3M

Dimensions of fasteners - hexagon and double hexagon (12 point) and spline sockets

FA/843 ASME/ANSI B18.2.2

FA/945 ANSI B18.2.4.1M

Internal thread parameters - ISO

FA/402 ISO 1502

FA/948 ANSI/ASME B1.16M

Internal thread parameters - system 21

FA/942 ANSI/ASME B1.2

FA/946 ANSI/ASME B1.16M

Internal thread parameters - system 22

FA/943 ANSI/ASME B1.2

FA/947 ANSI/ASME B1.16M

Mechanical and Physical Testing and Inspection**Cone proof load of internally threaded fasteners (nuts)**

FA/221 ASTM F606M Sec. 4.3

FA/951 SAE J995

Hardness preparation

FA/464 ASTM F606M

Measurement of fastener coating thickness - magnetic methods

FA/155 ASTM E376

Prevailing torque

FA/217 IFI-100/107
FA/218 ISO 2320

Proof load of full-size externally threaded fasteners

FA/229 SAE J429 Sec. 5.3
FA/230 SAE J1216 Sec. 3.3
FA/467 ASTM F606M Sec. 3.2.1-3.2.3

Proof load of internally threaded fasteners (nuts)

FA/237 ASTM F606M Sec. 4.2
FA/241 SAE J995 Sec. 5.1
FA/242 SAE J1216 Sec 4.2

Rockwell hardness of fasteners

FA/197 ASTM E18
FA/200 ISO 6508
FA/202 SAE J417

Rockwell superficial hardness of fasteners

FA/205 ASTM E18
FA/208 ISO 1024
FA/210 SAE J417

Torque-tension of full-size threaded fasteners

FA/306 IFI-101
FA/308 SAE J174
FA/944 ISO 2320

Metallography

Decarburization and case depth measurement in fasteners

FA/323 ASTM E1077
FA/329 SAE J419
FA/330 SAE J423

Microscopic examination of fasteners by etching

FA/512 ASTM E407
FA/552 ASTM E3

Surface discontinuities of internally threaded fasteners

FA/364 ASTM F812M
FA/703 SAE J122

NVLAP LAB CODE 200157-0

Seiko Epson Corporation

80 Harashinden Hirooka
Shiojiri-City Nagano 399-0785
JAPAN
Contact: Mr. Atsushi Shinozaki
Phone: 81 263-52-5094
Fax: 81 263-54-5806
E-Mail: atsushi.shinozaki@exc.epson.co.jp

FCC Test Methods

Accreditation Valid Through: June 30, 2000
NVLAP
Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

NVLAP LAB CODE 200158-0

San Shing Hardware Works Co., Ltd. Test Laboratory

Test Laboratory
355-6,1F, Chung Shan Rd Section 3, kui-Jen
Tainan
TAIWAN
Contact: Mr. Jackson Chen
Phone: 886-6-2306611 x311
Fax: 886-6-2306000
E-Mail: smc@sanshing.com.tw

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - flange screw heads and flange nuts

FA/566 IFI D21 p. D21

Dimensions of fasteners - gaging for slotted nuts

FA/417 ANSI/ASME B18.2.2

Internal thread parameters - ISO

FA/953 ANSI/ASME B18.2.2

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

FA/942 ANSI/ASME B1.2

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M

FA/943 ANSI/ASME B1.2

Mechanical and Physical Testing and Inspection

Clamp load test

FA/558 ISO 2320
FA/559 DIN 267, Part 15
FA/560 IFI-100/107

Cone proof load of internally threaded fasteners (nuts)

FA/220 ASTM F606 Sec. 4.3
FA/221 ASTM F606M Sec. 4.3

Measurement of fastener coating thickness - X-ray methods

FA/556 ASTM B568

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Measurement of fastener coating thickness - weight of coating**

FA/164 ASTM A90

Microhardness of fasteners

FA/189 ASTM E384

Prevailing torque

FA/217 IFI-100/107

FA/218 ISO 2320

FA/557 DIN 267, Part 15

Proof load of internally threaded fasteners (nuts)

FA/236 ASTM F606 Sec. 4.2

FA/237 ASTM F606M Sec. 4.2

FA/239 ISO 898-2 Sec. 8.1

FA/241 SAE J995 Sec. 5.1

Rockwell hardness of fasteners

FA/197 ASTM E18

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

Salt spray testing of fasteners

FA/166 ASTM B117

Torque-tension of full-size threaded fasteners

FA/306 IFI-101

Total extension at fracture of externally threaded fasteners

FA/285 ASTM F606 Sec. 3.7

FA/286 ASTM F606M Sec. 3.7

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/492 ASTM E92

Metallography**Decarburization and case depth measurement in fasteners**

FA/323 ASTM E1077

FA/561 ASTM E3

FA/562 ASTM G79

Surface discontinuities of internally threaded fasteners

FA/865 ASTM F812/F812M

NVLAP LAB CODE 200161-0**Robbins Manufacturing Co., Inc.**

1200 Airport Road

P.O. Box 704/750

Fall River, MA 02722

Contact: Mr. Robert J. Laborio

Phone: 508-675-2555

Fax: 508-677-0494

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection**Dimensions of general purpose fasteners and high-volume machine assembly fasteners**

FA/494 ANSI B18.2.1

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection**Axial tensile strength of full-size threaded fasteners**

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

Magnetic permeability

FA/214 ASTM A342 Test Method 3

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

Proof load of internally threaded fasteners (nuts)

FA/236 ASTM F606 Sec. 4.2

Rockwell hardness of fasteners

FA/197 ASTM E18

Salt spray testing of fasteners

FA/166 ASTM B117

Tension testing of machined specimens from externally threaded fasteners

FA/279 ASTM F606

Total extension at fracture of externally threaded fasteners

FA/285 ASTM F606

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4

Metallography**Decarburization and case depth measurement in fasteners**

FA/483 ASTM A574 Sec. 12

Nondestructive Inspection**Liquid penetrant inspection of fasteners**

FA/367 ASTM E165

FA/370 MIL-STD-271

NVLAP LAB CODE 200162-0**United States Technologies, Inc.**

3505 Francis Circle

Alpharetta, GA 30004

Contact: Mr. Tim Johnson

Phone: 770-740-0717

Fax: 770-740-1508

E-Mail: tjohnson.UStech@mindspring.comURL: <http://www.ustech-lab.com>**FCC Test Methods**

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200163-0

Ricoh Company, Ltd. Ohmori EMC Center

3-6, Naka-magome 1-Chome Ohta-ku

Tokyo 143-8555

JAPAN

Contact: Mr. Akio Niki

Phone: 81-3-3776-6281

Fax: 81-3-3777-8317

E-Mail: akio.niki@nts.ricoh.co.jp

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200166-0

O & K Company Limited, Osaka Test Center

8-81, Nakajima 2-Chome, Nishiyodogawa-Ku

Osaka-Shi 555-0041

JAPAN

Contact: Mr. Norio Shiga

Phone: 06-6471-0110

Fax: 06-6472-0554

URL: <http://www.mmjp.or.jp/oandk/>

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Chemical Analysis

Optical emission spectrochemical analysis

FA/457 ASTM E415

NVLAP LAB CODE 200167-0

Bay Area Compliance Laboratory, Corp.

230 Commercial Street, Suite 2

Sunnyvale, CA 94086

Contact: Mr. John Y. Chan

Phone: 408-732-9162

Fax: 408-732-9164

E-Mail: jchan@baclcorp.com

URL: <http://www.baclcorp.com>

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

ACA Technical Standards as determined under the Telecommunications Act of 1997

12/T41 ACA TS-001

12/T42 ACA TS-002

12/T44 ACA TS-004

12/T45 ACA TS-006

Australian Standards referred to by clauses in ACA

Technical Standards

12/T50 AS/NZS 3260

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

12/T01a 68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306

Hazardous voltage limit.; 68.308 Signal power

limit.; 68.310 Longitudinal balance limit.;

68.312 On-hook impedance limit.; 68.314

Billing protection

12/T01b 68.316 Hearing Aid Compatibility: technical standards

12/T01c 68.302 Environmental simulation (Par. a,b)

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**International Special Committee on Radio Interference
(CISPR) Methods**

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200169-0**Kobelco Research Institute, Inc. Stock Company**

2 Nadahama-Higashimachi, Nada-ku
Kobe 657-0863
JAPAN
Contact: Mr. Morifumi Nakamura
Phone: 81-78-882-8058
Fax: 81-78-882-8211

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Chemical Analysis

Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen

FA/586 JIS G1211

FA/587 JIS G1215

Optical emission spectrochemical analysis

FA/588 JIS G1253

Solution chemical analysis

FA/585 JIS G1258

NVLAP LAB CODE 200171-0**Leland-Powell Fasteners, Inc. Fastener Testing Laboratory**

Highway 45 South
P.O. Box 260
Martin, TN 38237
Contact: Mr. Jason Danner
Phone: 901-587-3106
Fax: 901-587-9613
E-Mail: jason@lpf.net

Fasteners & Metals

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Dimensional Inspection**Dimensions of fasteners - straightness**

FA/754 IFI 138

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/404 ANSI/ASME B18.18.2M

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/405 ANSI/ASME B18.18.3M

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection**Axial tensile strength of full-size threaded fasteners**

FA/273 SAE J429

FA/752 SAE J82

Drive test

FA/248 SAE J81

FA/750 SAE J933

Ductility test of thread rolling and self-drilling tappings screws

FA/250 SAE J81

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/709 SAE J81 Sec. 3.9

Measurement of fastener coating thickness - eddy-current method

FA/149 ASTM E376

Proof load of full-size externally threaded fasteners

FA/229 SAE J429 Sec. 5.3

Rockwell hardness of fasteners

FA/202 SAE J417

Rockwell superficial hardness of fasteners

FA/210 SAE J417

Torsional strength test of thread rolling and self-drilling tappings screws

FA/254 SAE J81

FA/751 SAE J933

Wedge tensile strength of full-size threaded fasteners

FA/468 SAE J429 Sec. 5.5

FA/753 SAE J82

NVLAP LAB CODE 200172-0**International Technology Company (ITC)**

9959 Calaveras Road
P.O. Box 543
Sunol, CA 94586-0543
Contact: Mr. Michael Gbadebo
Phone: 925-862-2944
Fax: 925-862-9013
E-Mail: itcemc@aol.com
URL: <http://www.itcemc.com>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions
- 12/T01 Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital
- 12/T01a 68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection
- 12/T01b 68.316 Hearing Aid Compatibility: technical standards
- 12/T01c 68.302 Environmental simulation (Par. a,b)

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200174-0

Training Research Co., Ltd.

2, Lane 194, Huan-Ho Street Hsichih
Taipei Hsien 221
TAIWAN
Contact: Mr. Frank Tsai
Phone: 886-2-2693-5155
Fax: 886-2-2693-4440
E-Mail: report@trclab.com.tw

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

- 12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200175-0

Ohtama Co., Ltd. Yamanashi EMC Test Site

1661 Oshuku Asigawa Higashi-Yatsushiro
Yamanashi
JAPAN
Contact: Mr. Etsuji Nogami
Phone: 81-552-98-2141
Fax: 81-552-98-2125

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

- 12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200177-0

Korea Testing & Research Inst. for Chemical Industry-Inchon Off.

GAJOA 3 DONG 539-8
Inchon 404-253
KOREA
Contact: Mr. Park-Kil Kim
Phone: 82-32-577-6801
Fax: 82-32-575-5613
E-Mail: kpk@KOTRIC.or.kr

Fasteners & Metals

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Chemical Analysis

Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen

- FA/455 ASTM E1019

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Optical emission spectrochemical analysis**

FA/457 ASTM E415

Solution chemical analysis

FA/448 ASTM E350

Dimensional Inspection**Dimensions of fasteners - straightness**

FA/423 ANSI/ASME B18.2.1

Dimensions of general purpose fasteners and**high-volume machine assembly fasteners**

FA/486 MIL-STD-120 (W/ Notice dtd 9 SEP 63)

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/493 MIL-STD-120 (W/ Notice dtd 9SEP 63)

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection**Axial tensile strength of full-size threaded fasteners**

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/267 ASTM F606M Sec. 3.4.1-3.4.3

Brinell hardness of fasteners

FA/186 ASTM E10

Charpy impact (u-notch) testing

FA/517 ASTM E23

Charpy impact (v-notch) testing

FA/212 ASTM E23

Cone proof load of internally threaded fasteners (nuts)

FA/220 ASTM F606 Sec. 4.3

FA/221 ASTM F606M Sec. 4.3

Measurement of fastener coating thickness - X-ray methods

FA/760 ASTM A754/A754M

Measurement of fastener coating thickness - magnetic methods

FA/153 ASTM B499

Measurement of fastener coating thickness - weight of coating

FA/164 ASTM A90

Microhardness of fasteners

FA/189 ASTM E384

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

FA/467 ASTM F606M Sec. 3.2.1-3.2.3

Proof load of internally threaded fasteners (nuts)

FA/236 ASTM F606 Sec. 4.2

FA/237 ASTM F606M Sec. 4.2

Rockwell hardness of fasteners

FA/197 ASTM E18

Salt spray testing of fasteners

FA/166 ASTM B117

Tension testing of machined specimens from externally threaded fasteners

FA/279 ASTM F606 Sec. 3.6

FA/280 ASTM F606M Sec. 3.6

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

FA/291 ASTM F606M Sec. 3.5

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4

FA/300 ASTM F606M Sec. 3.2.4

Metallography**Decarburization and case depth measurement in fasteners**

FA/323 ASTM E1077

Determination of grain size of fasteners

FA/638 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

Microscopic examination of fasteners by etching

FA/512 ASTM E407

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

Surface discontinuities of internally threaded fasteners

FA/865 ASTM F812/F812M

NVLAP LAB CODE 200178-0**Durkee Testing Laboratories, Inc.**

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Paramount, CA 90723-1401

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E-Mail: durkee@IBM.net

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Chemical Analysis**Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen**

FA/455 ASTM E1019

FA/472 ASTM E1447

FA/513 ASTM E1409

FA/514 ASTM E351 Sec. 37

FA/515 ASTM E352 Sec. 36

FA/516 ASTM E353 Sec. 37

Energy dispersive X-ray analysis

FA/500 ASTM E1508

Optical emission spectrochemical analysis

FA/457 ASTM E415

FA/458 ASTM E607

FA/459 ASTM E1086

Spot test analysis

FA/501 ASTM STP550

Mechanical and Physical Testing and Inspection

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued***Adhesion of metallic coatings on fasteners***

FA/541 QQ-P-416 Sec. 4.6.2

FB/1134 QQ-C-320

Axial tensile strength of full-size threaded fasteners

FA/271 MIL-STD-1312-8

Bend test of full size eyebolts

FA/503 ASTM A370

FB/1133 ASTM E290

Breaking strength of fullsize eyebolts

FA/508 MIL-STD-1312-8

Brinell hardness of fasteners

FA/186 ASTM E10

CASS test (copper-accelerated acetic acid-salt spray test) of fasteners

FA/496 ASTM B368

Charpy impact (u-notch) testing

FA/517 ASTM E23

Charpy impact (v-notch) testing

FA/211 ASTM A370 Sec. 19-28

FA/212 ASTM E23

Copper sulfate test - test for free iron on the surface of corrosion resistant fasteners

FA/499 ASTM A380

Double shear of externally threaded fasteners

FA/257 MIL-STD-1312-13

Elevated temperature testing capability

FA/505 MIL-STD-1312-18

Fatigue of full-size threaded fasteners

FA/183 MIL-STD-1312-11

Humidity testing of fasteners

FA/473 MIL-STD-1312-3

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/176 MIL-STD-1312-5

Hydrogen embrittlement (stress durability) of internally threaded fasteners

FA/178 MIL-STD-1312-14

Intergranular corrosion susceptibility in austenitic stainless steel fasteners - nitric aci

FA/173 ASTM A262 Sec. 15-21, Practice C

FA/504 ASTM G28

Intergranular corrosion susceptibility of austenitic stainles steel fasteners - oxalic acid

FA/174 ASTM A262 Sec. 3-7, Practice A

Measurement of fastener coating thickness - dimensional change method

FA/495 MIL-STD-1312-12

Measurement of fastener coating thickness - magnetic methods

FA/159 MIL-STD-1312-12

Measurement of fastener coating thickness - microscopical method

FA/163 MIL-STD-1312-12

Measurement of fastener coating thickness - weight of coating

FA/165 MIL-STD-1312-12

Microhardness of fasteners

FA/193 MIL-STD-1312-6

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

Proof load of full-size eyebolts

FA/232 ASTM F541

Proof load of internally threaded fasteners (nuts)

FA/236 ASTM F606 Sec. 4.2

Push out test of floating plate nuts, gang channel nuts, and anchor nuts

FA/116 MIL-N-25027

Recess strength test in both the installation and removal directions

FA/476 MIL-STD-1312-25

Rockwell hardness of fasteners

FA/201 MIL-STD-1312-6

Rockwell superficial hardness of fasteners

FA/209 MIL-STD-1312-6

Salt spray testing of fasteners

FA/166 ASTM B117

FA/168 MIL-STD-1312-1

Single shear of externally threaded fasteners

FA/256 MIL-STD-1312-20

Stress corrosion of fasteners

FA/172 MIL-STD-1312-9

Stress rupture of fasteners

FA/262 MIL-STD-1312-10

Tension testing of machined specimens from externally threaded fasteners

FA/278 ASTM A370

FA/475 ASTM E8

FA/526 MIL-STD-1312-8

Test for embrittlement of metallic coated externally threaded fasteners

FA/525 MIL-STD-1312-5

Torque-out test

FA/133 MIL-N-25027

FA/502 MIL-N-45913

FA/523 MIL-STD-1312-31

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/507 ASTM E384

Water immersion method - test for anodic surface contaminants on corrosion resistant faste

FA/498 ASTM G31

Wedge tensile strength of full-size threaded fasteners

FA/289 ASTM A370

FA/290 ASTM F606 Sec. 3.5

Yield strength of full-size externally threaded fasteners

FA/303 MIL-STD-1312-8

Metallography***Decarburization and case depth measurement in fasteners***

FA/483 ASTM A574 Sec. 12

FA/520 ASTM F835

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

Microscopic examination of fasteners by etching

FA/512 ASTM E407

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

Surface discontinuities of internally threaded fasteners

FA/865 ASTM F812/F812M

NVLAP LAB CODE 200179-0

Fastener Innovation Technology, Inc.

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Gardena, CA 90248-1811

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Phone: 310-538-1111

Fax: 310-324-7602

E-Mail: JWM@fitfastener.com

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - flange screw heads and flange nuts

FB/1139 IFI 115

Dimensions of fasteners - hexagon and double hexagon (12 point) and spline sockets

FA/411 ANSI/ASME B18.3

FB/1140 ANSI B18.2.1

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/791 NAS 527

FA/854 ANSI/ASME B18.6.4

FB/1137 NAS 9800

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FB/1062 BPS-F-67

External thread parameters - ISO

FA/594 FED-STD-H28/21

External thread parameters - system 21

FA/380 FED-STD-H28/20

FA/628 MIL-S-8879

External thread parameters - system 22

FA/382 FED-STD-H28/20

FA/384 MIL-S-8879

External thread parameters - system 23

FA/386 FED-STD-H28/20

FA/388 MIL-S-8879

Surface texture

FA/439 ANSI/ASME B46.1

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/271 MIL-STD-1312-8

FA/530 ASTM E8

Copper sulfate test - test for free iron on the surface of corrosion resistant fasteners

FA/499 ASTM A380

FB/1138 SAE-AMS-STD-753

Double shear of externally threaded fasteners

FA/257 MIL-STD-1312-13

Elevated temperature testing capability

FA/505 MIL-STD-1312-18

Fatigue of full-size threaded fasteners

FA/183 MIL-STD-1312-11

Humidity testing of fasteners

FA/169 MIL-STD-753 Test Method 101

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/176 MIL-STD-1312-5

Magnetic permeability

FA/214 ASTM A342 Test Method 3

FA/215 MIL-I-17214

Measurement of fastener coating thickness - microscopical method

FA/591 ASTM E1182

Microhardness of fasteners

FA/189 ASTM E384

FA/193 MIL-STD-1312-6

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

Push out test of floating plate nuts, gang channel nuts, and anchor nuts

FA/116 MIL-N-25027

Recess strength test in both the installation and removal directions

FA/476 MIL-STD-1312-25

Rensability test of self-locking internally threaded fasteners

FA/124 MIL-N-25027

Rockwell hardness of fasteners

FA/197 ASTM E18

FA/201 MIL-STD-1312-6

Rockwell superficial hardness of fasteners

FA/209 MIL-STD-1312-6

Salt spray testing of fasteners

FA/166 ASTM B117

FA/168 MIL-STD-1312-1

Single shear of externally threaded fasteners

FA/256 MIL-STD-1312-20

Stress corrosion of fasteners

FA/172 MIL-STD-1312-9

Stress rupture of fasteners

FA/262 MIL-STD-1312-10

Tension testing of machined specimens from externally threaded fasteners

FA/475 ASTM E8

FA/526 MIL-STD-1312-8

Torque-out test

FA/133 MIL-N-25027

Total extension at fracture of externally threaded

fasteners

FA/592 ASTM E8

Wedge tensile strength of full-size threaded fasteners

FA/289 ASTM A370

FA/290 ASTM F606 Sec. 3.5

Wrench torque test of externally wrenching nuts of spline and hexagon and double hexagon (1

FA/141 MIL-N-25027

Yield strength of full-size externally threaded fasteners

FA/593 ASTM E8

Metallography

Decarburization and case depth measurement in fasteners

FA/323 ASTM E1077

FB/1047 BPS-F-67

FB/1107 BPS-F-69

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

FB/1108 BPS-F-67

FB/1109 BPS-F-69

Microscopic examination of fasteners by etching

FA/512 ASTM E407

FB/1118 BPS-F-67

FB/1121 BPS-F-69

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

Nondestructive Inspection

Liquid penetrant inspection of fasteners

FA/371 MIL-STD-6866

FA/527 ASTM E1417

Magnetic particle inspection of fasteners

FA/485 ASTM E1444

NVLAP LAB CODE 200180-0

Fuji Component Parts USA, Inc.

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Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Chemical Analysis

Optical emission spectrochemical analysis

FA/457 ASTM E415

Dimensional Inspection

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

Measurement of fastener coating thickness - coulometric method

FA/567 ASTM B504

Microhardness of fasteners

FA/657 ASTM E92

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

Proof load of internally threaded fasteners (nuts)

FA/236 ASTM F606 Sec. 4.2

Rockwell hardness of fasteners

FA/197 ASTM E18

Salt spray testing of fasteners

FA/166 ASTM B117

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4

NVLAP LAB CODE 200183-0

California Screw Products

14957 Gwenchris Court

Paramount, CA 90723-3423

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Phone: 562-633-6626

Fax: 562-633-2082

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - straightness

FA/423 ANSI/ASME B18.2.1

External thread parameters - SAE fastener with MJ metric screw threads

FA/922 ANSI/ASME B1.3M

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

External thread parameters - system 23

FA/385 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/799 NASM 1312-8

Double shear of externally threaded fasteners

FA/880 NASM 1312-13

Fatigue of full-size threaded fasteners

FA/876 NASM 1312-11

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/875 NASM 1312-5

Magnetic permeability

FA/214 ASTM A342 Test Method 3

Measurement of fastener coating thickness - dimensional change method

FA/874 NASM 1312-12

Measurement of fastener coating thickness - eddy-current method

FA/872 NASM 1312-12

Measurement of fastener coating thickness - microscopical method

FA/873 NASM 1312-12

Microhardness of fasteners

FA/877 NASM 1312-6

Recess strength test in both the installation and removal directions

FA/886 NASM 1312-25

Rockwell hardness of fasteners

FA/878 NASM 1312-6

Single shear of externally threaded fasteners

FA/879 NASM 1312-20

Stress rupture of fasteners

FA/881 NASM 1312-10

Metallography

Decarburization and case depth measurement in fasteners

FA/328 SAE J121

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

Microscopic examination of fasteners by etching

FA/512 ASTM E407

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

NVLAP LAB CODE 200186-0

Hitachi Information Technology Co., Ltd.

456 Sakai, Nakai-machi, Ashigarakami-gun
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JAPAN

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FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200188-0

EMSL Analytical, Inc.

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Fax: 317-570-5894

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 200189-0

Japan Quality Assurance Organization Safety Testing Center

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JAPAN

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E-Mail: JQA00127@nifty.ne.jp

URL: <http://www/jqq.or.jp>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

NVLAP LAB CODE 200190-0

Japan Quality Assurance Org. Chubu Testing Center Shikatsu Branch

53-1, Yamaura, Yakushiji, Shikatsu-cho
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FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200191-0

Japan Quality Assurance Organization

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FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200192-0

Japan Quality Assurance Org. Safety Testing Ctr.

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FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

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12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200194-0**TWN Fastener, Inc.**

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Bowling Green, KY 42101

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Fax: 502-781-3150

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection**Dimensions of general purpose fasteners and high-volume machine assembly fasteners**

FA/607 JIS B1071

Mechanical and Physical Testing and Inspection**Axial tensile strength of full-size threaded fasteners**

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/574 JIS B1051 Sec. 4.2.2

Hardness preparation

FA/482 ASTM F606

Measurement of fastener coating thickness - magnetic methods

FA/155 ASTM E376

FA/596 JIS H8501

Microhardness of fasteners

FA/642 JIS B1051 Sec. 4.2.5

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

FA/573 JIS B1051 Sec. 4.2.4

Rockwell hardness of fasteners

FA/616 JIS B1051 Sec. 4.3

Salt spray testing of fasteners

FA/166 ASTM B117

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

FA/575 JIS B1051 Sec. 4.2.3

Metallography**Decarburization and case depth measurement in fasteners**

FA/645 JIS B1051

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

NVLAP LAB CODE 200195-0**Republic Fastener Manufacturing**

1300 Rancho Conejo Blvd.

Newbury Park, CA 91320-1405

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Phone: 805-498-6621

Fax: 805-498-4250

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection**Dimensions of fasteners - bearing surface squareness**

FA/633 MIL-N-25027

FA/911 BPS-N-70

FA/912 NAS 3350

FA/913 MIL-N-7873

FA/914 AMS 7251

FA/921 Northrop 33A056

Internal thread parameters - system 21

FA/629 MIL-S-8879

Internal thread parameters - system 22

FA/396 MIL-S-8879

Surface texture

FA/439 ANSI/ASME B46.1

Mechanical and Physical Testing and Inspection**Adhesion of metallic coatings on fasteners**

FA/541 QQ-P-416 Sec. 4.6.2

FA/916 BPS-N-70

Axial tensile strength of full-size threaded fasteners

FA/271 MIL-STD-1312-8

Elevated temperature testing capability

FA/895 BPS-N-70

FA/896 MIL-N-25027

FA/897 NAS 3350

Hydrogen embrittlement (stress durability) of internally threaded fasteners

FA/178 MIL-STD-1312-14

Magnetic permeability

FA/214 ASTM A342 Test Method 3

Measurement of fastener coating thickness - beta backscatter method

FA/889 ASTM B567

Measurement of fastener coating thickness - microscopical method

FA/160 ASTM B487

FA/163 MIL-STD-1312-12

Microhardness of fasteners

FA/193 MIL-STD-1312-6

FA/898 NAS 3350

Permanent set test of self-locking nuts

FA/109 MIL-N-25027

FA/110 NAS 3350

FA/890 MIL-N-7873

Prevailing torque

FA/630 MIL-N-25027

FA/899 BPS-N-70

FA/900 AMS 7251

FA/901 MIL-N-7873

FA/902 NAS 3350

FA/920 Northrop 33A056

Proof load of internally threaded fasteners (nuts)

FA/903 NAS 3350

FA/917 BPS-N-70

FA/918 MIL-N-25027

Push out test of floating plate nuts, gang channel nuts, and anchor nuts

FA/116 MIL-N-25027

FA/891 BPS-N-70

Reusability test of self-locking internally threaded fasteners

FA/123 MIL-N-7873

FA/124 MIL-N-25027

FA/125 NAS 3350

FA/774 BPS-N-70

FA/892 AMS 7251

FA/919 Northrop 33A056

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

FA/209 MIL-STD-1312-6

Room temperature of three cycles test of floating plate nuts, gang channel nuts and anchor

FA/915 AMS 7251

Salt spray testing of fasteners

FA/166 ASTM B117

FA/168 MIL-STD-1312-1

Torque-out test

FA/523 MIL-STD-1312-31

Water immersion method - test for anodic surface contaminants on corrosion resistant fastener

FA/756 MIL-STD-753 Test 100

Wrench torque test of externally wrenching nuts of spline and hexagon and double hexagon (1)

FA/141 MIL-N-25027

FA/142 NAS 3350

FA/893 BPS-N-70

FA/894 AMS 7251

Metallography

Decarburization and case depth measurement in fasteners

FA/904 BPS-N-70

FA/908 NAS 3350

Determination of grain size of fasteners

FA/905 BPS-N-70

FA/909 NAS 3350

Microscopic examination of fasteners by etching

FA/906 BPS-N-70

FA/910 NAS 3350

Surface discontinuities of internally threaded fasteners

FA/907 BPS-N-70

Nondestructive Inspection

Liquid penetrant inspection of fasteners

FA/527 ASTM E1417

Magnetic particle inspection of fasteners

FA/485 ASTM E1444

NVLAP LAB CODE 200196-0

Belgo-Mineira Chemical Laboratory

Av. Getulio Vargas, No 100

35.930-900 Joao Monlevade, M.G.

BRAZIL

Contact: Mr. Jose da Luz de Souza

Phone: 55-31-859-1401

Fax: 55-31-852-6336

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Chemical Analysis

Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen

FA/455 ASTM E1019

FA/563 ASTM E1806

Optical emission spectrochemical analysis

FA/457 ASTM E415

FA/555 ASTM E1009

FA/564 ASTM E1806

X-ray fluorescence (XRF) spectrochemical analysis

FA/461 ASTM E322

FA/565 ASTM E1806

NVLAP LAB CODE 200198-0

IBM Yamato EMC Engineering

1623-14, Shimotsuruma
Yamato Kanagawa 242-8502
JAPAN
Contact: Mr. Akihisa Sakurai
Phone: 81-462-73-2613
Fax: 81-462-73-7420
E-Mail: akihisa@jp.ibm.com

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions

**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

NVLAP LAB CODE 200199-0

NAWCWD EMI Lab, China Lake/Pt. Mugu, CA

Commander, NAWCWPNS Division
1 Admin. Circle Code 476400D Bldg 5/121D
China Lake, CA 93555-6001
Contact: Mr. S. N. Tanner
Phone: 760-939-4669
Fax: 760-939-1065
E-Mail: TannerSN@navair.navy.mil
URL: <http://www.nawcwpns.navy.mil>

MIL-STD-462 Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Conducted Emissions:

12/A01 MIL-STD-462 Method CE01
12/A04 MIL-STD-462 Method CE02
12/A06 MIL-STD-462 Method CE03
12/A08 MIL-STD-462 Method CE04
12/A10 MIL-STD-462 Method CE06
12/A12 MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01
12/B02 MIL-STD-462 Method CS02
12/B05 MIL-STD-462 Method CS06

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)
12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)
12/E05 MIL-STD-462 Method RS05

NVLAP LAB CODE 200200-0

IBM RTP PSG EMC Test Labs

3039 Cornwallis Road
Research Triangle Park, NC 27709-2195
Contact: Mr. Jairo Pacheco
Phone: 919-543-3686
Fax: 919-254-7778
E-Mail: jairo@us.ibm.com

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions

**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200201-0

Intertek Testing Services

1365 Adams Court
Menlo Park, CA 94025
Contact: Mr. C. K. Li
Phone: 650-463-2922
Fax: 650-463-2910
E-Mail: ckli@itsqs.com
URL: <http://www.worldlab.com>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200202-0

NOVA Machine Products

18001 Sheldon Road
Middleburg Heights, OH 44130-2471
Contact: Mr. David Nenstiel
Phone: 216-267-3200
Fax: 216-267-8515
E-Mail: dnenstiel@nova-nsa.com
URL: <http://www.lab@nova-nsa.com>

Fasteners & Metals

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Chemical Analysis

Optical emission spectrochemical analysis

FA/457 ASTM E415
FA/459 ASTM E1086

Spot test analysis

FA/748 Alloy Detector Mark II

Dimensional Inspection

Dimensions of ISO grade A and B fasteners

FA/738 ISO 4014
FA/739 ISO 4017
FA/740 ISO 4032

Dimensions of ISO grade C fasteners

FA/741 ISO 4016
FA/742 ISO 4018
FA/743 ISO 4034

Dimensions of fasteners - bearing surface squareness

FA/745 ANSI B18.2.1
FA/746 ASME/ANSI B18.2.2
FA/747 ASME/ANSI B18.3

Dimensions of fasteners - flange screw heads and flange nuts

FA/744 ANSI B18.2.1

Dimensions of fasteners - gaging for slotted nuts

FA/417 ANSI/ASME B18.2.2

Dimensions of fasteners - hexagon and double hexagon (12 point) and spline sockets

FA/411 ANSI/ASME B18.3

Dimensions of fasteners - straightness

FA/423 ANSI/ASME B18.2.1

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/403 ANSI/ASME B18.18.1M
FA/404 ANSI/ASME B18.18.2M

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/405 ANSI/ASME B18.18.3M
FA/406 ANSI/ASME B18.18.4M

External thread parameters - ISO

FA/728 ISO 68
FA/729 ISO 261
FA/730 ISO 262
FA/731 ISO 965-1
FA/732 ISO 965-2

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

External thread parameters - system 23

FA/385 ANSI/ASME B1.3M

Internal thread parameters - ISO

FA/733 ISO 68
FA/734 ISO 261
FA/735 ISO 262
FA/736 ISO 965-1
FA/737 ISO 965-2

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M

Internal thread parameters - system 23

FA/397 ANSI/ASME B1.3M

Surface texture

FA/439 ANSI/ASME B46.1

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/265 ASTM A370 Sec. A3.2.1.4
FA/266 ASTM F606 Sec. 3.4.1-3.4.3
FA/273 SAE J429
FA/274 SAE J1216
FA/687 ISO 6892

Compression load of compressible-washer-type direct tension indicators

FA/312 ASTM F959

Cone proof load of internally threaded fasteners (nuts)

FA/220 ASTM F606 Sec. 4.3

Embrittlement test of washers

FA/313 ASME B18.21.1

Hardness preparation

FA/482 ASTM F606

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/176 MIL-STD-1312-5

Hydrogen embrittlement (stress durability) of internally threaded fasteners

FA/178 MIL-STD-1312-14

Proof load of full-size externally threaded fasteners

FA/225 ASTM A370 Sec. A3.2.1.1-A3.2.1.3
FA/226 ASTM F606 Sec. 3.2.1-3.2.3
FA/229 SAE J429 Sec. 5.3
FA/230 SAE J1216 Sec. 3.3

Proof load of internally threaded fasteners (nuts)

FA/235 ASTM A370 Sec. A3.5.1
FA/236 ASTM F606 Sec. 4.2
FA/241 SAE J995 Sec. 5.1

Recovery test of washers

FA/726 ASME/ANSI B18.21.1

Rockwell hardness of fasteners

FA/196 ASTM A370 Sec. 18
FA/197 ASTM E18
FA/200 ISO 6508
FA/202 SAE J417

Rockwell superficial hardness of fasteners

FA/205 ASTM E18
FA/206 ASTM A370 Sec. 18
FA/210 SAE J417

Temper test of lock washers

FA/319 ASME B18.21.1

Tension testing of machined specimens from externally threaded fasteners

FA/278 ASTM A370
FA/279 ASTM F606 Sec. 3.6
FA/283 SAE J429
FA/475 ASTM E8
FA/580 ISO 6892

Test for embrittlement of metallic coated externally threaded fasteners

FA/179 ASTM F606 Sec. 7
FA/724 ASTM A143

Torque-tension of full-size threaded fasteners

FA/307 MIL-STD-1312-15

Total extension at fracture of externally threaded fasteners

FA/285 ASTM F606 Sec. 3.7
FA/725 ISO 6892

Twist test of lock washers

FA/321 ASME B18.21.1

Wedge tensile strength of full-size threaded fasteners

FA/289 ASTM A370
FA/290 ASTM F606 Sec. 3.5
FA/468 SAE J429 Sec. 5.5
FA/469 SAE J1216 Sec. 3.6
FA/688 ISO 6892

Metallography

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M
FA/359 ISO 6157-1
FA/360 ISO 6157-3
FA/361 SAE J123

Surface discontinuities of internally threaded fasteners

FA/363 ASTM F812
FA/365 SAE J122
FA/727 ISO 6157-2

NVLAP LAB CODE 200203-0

Fuji Buhin Kogyo Kabushiki Kaisha

47-1 Fujikura-Cho
Ohta Gunma 373-8501
JAPAN

Contact: Mr. Shinji Kanai

Phone: 276-31-2311

Fax: 276-31-9621

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Internal thread parameters - system 21

FA/621 JIS B0251
FA/622 JIS B0252
FA/623 JIS B1071

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/574 JIS B1051 Sec. 4.2.2

Measurement of fastener coating thickness - coulometric method

FA/597 JIS H8501

Microhardness of fasteners

FA/620 JIS Z2244

Prevailing torque

FA/600 JIS B1056

Proof load of internally threaded fasteners (nuts)

FA/601 JIS B1052

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

Rockwell hardness of fasteners

FA/572 JIS Z2245

Salt spray testing of fasteners

FA/569 JIS Z2371

Wedge tensile strength of full-size threaded fasteners

FA/575 JIS B1051 Sec. 4.2.3

NVLAP LAB CODE 200204-0**EMSL Analytical, Inc.**

19595 NE 10th Ave., Bay C

N. Miami Beach, FL 33179

Contact: Ms. Kimberly A. Wallace

Phone: 305-650-0577

Fax: 305-650-0578

URL: <http://www.emsl.com>**Bulk Asbestos Analysis (PLM)**

Accreditation Valid Through: March 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 200205-0**Sannohashi Corporation**

1218 Ohson

Yashioshi, Saitama-ken 340

JAPAN

Contact: Mr. Takeru Nagashima

Phone: 011-81-3-3890-4101

Fax: 011-81-3-3854-5761

E-Mail: kaihatul@sannohashi.co.jp**Fasteners & Metals**

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Dimensional Inspection**Dimensions of general purpose fasteners and high-volume machine assembly fasteners**

FA/607 JIS B1071

Mechanical and Physical Testing and Inspection**Axial tensile strength of full-size threaded fasteners**

FA/574 JIS B1051 Sec. 4.2.2

Measurement of fastener coating thickness - eddy-current method

FA/618 JIS H8501

Measurement of fastener coating thickness - weight of coating

FA/619 JIS H8501

Proof load of internally threaded fasteners (nuts)

FA/601 JIS B1052

Rockwell hardness of fasteners

FA/572 JIS Z2245

Wedge tensile strength of full-size threaded fasteners

FA/575 JIS B1051 Sec. 4.2.3

NVLAP LAB CODE 200207-0**Kansai Electronic Industry Development Center, Ikoma Testing Lab.**

12128 Takayama-cho

Ikoma Nara 630-0101

JAPAN

Contact: Mr. Tadayoshi Sakabe

Phone: 0743-78-0283

Fax: 0743-79-1014

E-Mail: sakabe@kec.or.jpURL: <http://www.kec.or.jp/>**FCC Test Methods**

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200208-0**Ingersoll Fasteners**

390 Thomas Street

Ingersoll Ontario N5C 3K3

CANADA

Contact: Mr. Alan Palmer

Phone: 519-485-4610

Fax: 519-485-2435

E-Mail: IFQA@IVACO.COM**Fasteners & Metals**

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Dimensional Inspection

Dimensions of general purpose fasteners and high-volume machine assembly fasteners
FA/404 ANSI/ASME B18.18.2M
External thread parameters - system 21
FA/379 ANSI/ASME B1.3M
External thread parameters - system 22
FA/381 ANSI/ASME B1.3M
Internal thread parameters - system 21
FA/391 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners
FA/273 SAE J429
FA/578 SAE J1216 Sec. 3.5
Cone proof load of internally threaded fasteners (nuts)
FA/220 ASTM F606 Sec. 4.3
Measurement of fastener coating thickness - magnetic methods
FA/153 ASTM B499
Microhardness of fasteners
FA/189 ASTM E384
Proof load of full-size externally threaded fasteners
FA/229 SAE J429 Sec. 5.3
FA/577 SAE J1216 Sec. 3.3
Proof load of internally threaded fasteners (nuts)
FA/241 SAE J995 Sec. 5.1
Rockwell hardness of fasteners
FA/197 ASTM E18
Rockwell superficial hardness of fasteners
FA/205 ASTM E18
Salt spray testing of fasteners
FA/166 ASTM B117
Tension testing of machined specimens from externally threaded fasteners
FA/278 ASTM A370
Wedge tensile strength of full-size threaded fasteners
FA/468 SAE J429 Sec. 5.5
FA/579 SAE J1216 Sec. 3.6

Metallography

Decarburization and case depth measurement in fasteners
FA/328 SAE J121
Macroscopic examination of fasteners by etching
FA/337 SAE J1061
Microscopic examination of fasteners by etching
FA/344 SAE J121
Surface discontinuities of externally threaded fasteners
FA/362 SAE J1061
Surface discontinuities of internally threaded fasteners
FA/363 ASTM F812

NVLAP LAB CODE 200212-0

Sundram Fasteners Limited (Inhouse test laboratory)

Padi
Chennai (Madras), Tamil, Nadh 600 050
INDIA
Contact: Mr. Sampathkumar Moorthy
Phone: 91-44-852-1870
Fax: 91-44-853-5435

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of ISO grade A and B fasteners

FA/408 ISO 4759-1

Dimensions of ISO grade C fasteners

FA/410 ISO 4759-1

Dimensions of fasteners - flange screw heads and flange nuts

FA/669 ISO 4161

FA/670 ISO 4162

Dimensions of fasteners - gaging for slotted nuts

FA/980 ISO 4759-2

Dimensions of fasteners - straightness

FA/668 ISO 4759-1

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/665 ISO 4759-1

External thread parameters - ISO

FA/390 ISO 1502

External thread parameters - SAE fastener with MJ metric screw threads

FA/389 SAE MA1566

FA/661 ISO 4759-1

FA/662 ISO 1502

External thread parameters - system 21

FA/659 ISO 4759-1

FA/660 ISO 1502

Internal thread parameters - ISO

FA/402 ISO 1502

FA/664 ISO 4759-1

Internal thread parameters - SAE fastener with MJ metric screw threads

FA/979 ISO 4759-1

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/270 ISO 898-1 Sec. 8.2

FA/273 SAE J429

FA/274 SAE J1216

Brinell hardness of fasteners

FA/466 ISO 6506

Cone proof load of internally threaded fasteners (nuts)

FA/220 ASTM F606 Sec. 4.3
FA/221 ASTM F606M Sec. 4.3
FA/223 SAE J122 Sec. 4.3

Microhardness of fasteners

FA/657 ASTM E92

Prevailing torque

FA/217 IFI-100/107
FA/218 ISO 2320

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3
FA/228 ISO 898-1 Sec. 8.4
FA/229 SAE J429 Sec. 5.3
FA/230 SAE J1216 Sec. 3.3
FA/467 ASTM F606M Sec. 3.2.1-3.2.3

Proof load of internally threaded fasteners (nuts)

FA/236 ASTM F606 Sec. 4.2
FA/237 ASTM F606M Sec. 4.2
FA/239 ISO 898-2 Sec. 8.1
FA/240 ISO 898-6 Sec. 8.1
FA/241 SAE J995 Sec. 5.1

Rockwell hardness of fasteners

FA/197 ASTM E18
FA/200 ISO 6508

Salt spray testing of fasteners

FA/166 ASTM B117

Tension testing of machined specimens from externally threaded fasteners

FA/279 ASTM F606 Sec. 3.6
FA/280 ASTM F606M Sec. 3.6
FA/282 ISO 898-1
FA/283 SAE J429
FA/284 SAE J1216

Torque-tension of full-size threaded fasteners

FA/306 IFI-101
FA/308 SAE J174

Total extension at fracture of externally threaded fasteners

FA/285 ASTM F606 Sec. 3.7
FA/286 ASTM F606M Sec. 3.7

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/658 ISO 6507-1

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5
FA/291 ASTM F606M Sec. 3.5
FA/294 ISO 898-1 Sec. 8.5
FA/468 SAE J429 Sec. 5.5
FA/469 SAE J1216 Sec. 3.6

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4
FA/300 ASTM F606M Sec. 3.2.4

Metallography

Decarburization and case depth measurement in fasteners

FA/323 ASTM E1077
FA/328 SAE J121
FA/329 SAE J419

FA/330 SAE J423

Determination of grain size of fasteners

FA/331 ASTM E112
FA/333 SAE J418

Macroscopic examination of fasteners by etching

FA/334 ISO 6157-1
FA/335 ISO 6157-3
FA/336 SAE J123

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M
FA/359 ISO 6157-1
FA/361 SAE J123

Surface discontinuities of internally threaded fasteners

FA/365 SAE J122
FA/865 ASTM F812/F812M

Nondestructive Inspection

Magnetic particle inspection of fasteners

FA/374 ASTM E709
FA/378 SAE J420

NVLAP LAB CODE 200213-0

Aoyama Fastener Laboratory

c/o Aoyama Seisakusho
1-8 Takahashi, Ohguchi-cho
Niwa-gun, Aichi Prefecture 480-0198
JAPAN
Contact: Mr. Shinichi Kondo
Phone: 0587-95-1160
Fax: 0587-95-1939

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/607 JIS B1071
FA/675 JIS B1012

Surface texture

FA/650 JIS B1071

Mechanical and Physical Testing and Inspection

Adhesion of metallic coatings on fasteners

FA/595 JIS H8504

Axial tensile strength of full-size threaded fasteners

FA/574 JIS B1051 Sec. 4.2.2

Measurement of fastener coating thickness - coulometric method

FA/597 JIS H8501

Measurement of fastener coating thickness - eddy-current method

FA/618 JIS H8501

Measurement of fastener coating thickness - microscopical method

FA/640 JIS H8501

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Measurement of fastener coating thickness - weight of coating**

FA/619 JIS H8501

Microhardness of fasteners

FA/620 JIS Z2244

Proof load of internally threaded fasteners (nuts)

FA/601 JIS B1052

Rockwell hardness of fasteners

FA/572 JIS Z2245

FA/683 JIS B1052

FA/707 JIS B1051 Sec. 4.2.5

Salt spray testing of fasteners

FA/598 JIS H8502

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/571 JIS Z2244

FA/643 JIS B1051 Sec. 4.2.5

FA/684 JIS B1052

Wedge tensile strength of full-size threaded fasteners

FA/575 JIS B1051 Sec. 4.2.3

FA/685 JIS D4604 Sec. 7.7(1)

Yield strength of full-size externally threaded fasteners

FA/686 JIS B1051 Sec. 4.2.2

Metallography**Decarburization and case depth measurement in fasteners**

FA/645 JIS B1051

NVLAP LAB CODE 200214-0**Underwriters Laboratories Inc.**

2600 N.W. Lake Road
Camas, WA 98607-8542
Contact: Mr. Rick A. Titus
Phone: 847-272-8800
Fax: 847-509-6219
E-Mail: titusr@ul.com
URL: <http://www.ul.com>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of

measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200215-0**Sumitomo Metal Technology, Inc. Kokura Division**

1, Konomi-machi, Kokurakita-ku
Kitakyushu 803-0803
JAPAN
Contact: Mr. Makoto Kimura
Phone: 81-93-581-3289
Fax: 81-93-561-8099
E-Mail: kimura-mkt@aw.sumikin.co.jp

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Chemical Analysis**Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen**

FA/586 JIS G1211

FA/587 JIS G1215

Optical emission spectrochemical analysis

FA/588 JIS G1253

FA/681 JIS G1258

Solution chemical analysis

FA/680 JIS G1227

NVLAP LAB CODE 200216-0**Battelle - Pacific Northwest National Laboratory**

Battelle Boulevard (Mail Stop K3-55)
P.O. Box 999
Richland, WA 99352-4553
Contact: Mr. Jack J. Fix
Phone: 509-375-2512
Fax: 509-373-0167
E-Mail: jack.fix@pnl.gov
URL: http://www.pnl.gov/health/health_prot/

Ionizing Radiation Dosimetry

Accreditation Valid Through: September 30, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing the Harshaw automatic reader model 8800 and manual reader model 6600.

This facility is accredited to process the following dosimeters by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993 and ANSI HPS N13.32-1995 through testing.

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

Harshaw Card 7776 (15, 15, 6, 15) in a Type 8825 holder for ANSI-N13.11 categories I, II, IIIA, IIIB, IV, VC, VI, VII, VIII.

Harshaw Combo 7777-7666 in a 8816 and 8825 model holder for ANSI-N13.11 category VIII.

Harshaw extremity TLD XD-740 (TLD-700) in a finger ring holder for ANSI HPS N13.32 (NIST Handbook 150-4, Table 2) categories I, II, IIIA, IVA, VC.

NVLAP LAB CODE 200217-0**Tokin EMC Engineering Co., Ltd. Kawasaki Facility**

398, Shiboguchi Takatsu-ku
Kawasaki-city, Kanagawa 213
JAPAN
Contact: Mr. Hiro Shida
Phone: 81-298-37-2400
Fax: 81-298-37-2401
E-Mail: shida@tee.tokin.co.jp

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
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12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 200218-0**Tokin EMC Engineering Co., Ltd. Osaka Testing Laboratory**

49, Aza-Miyanowaki, Sakai
Sanda-city, Hyogo 669-14
JAPAN
Contact: Mr. Motoji Nakai
Phone: 81-795-69-1290
Fax: 81-795-69-0079
E-Mail: nakai@tee.tokin.co.jp

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
--------	---

12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 200219-0**Tokin EMC Engineering Co., Ltd. Nagoya Testing Laboratory**

1684, Nishinoda, Nyugawakami
Daian-cho, Inabe-gun, Mie 511-0261
JAPAN
Contact: Mr. Motoji Nakai
Phone: 81-795-69-1290
Fax: 81-795-69-0079
E-Mail: nakai@tee.tokin.co.jp

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
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12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 200220-0

Korea Tokin EMC Engineering Co., Ltd.

820-2, Wolmoon-Ri, WaBu-up
Namyangju-si, Kyunggi-Do 472-900
KOREA
Contact: Mr. Jae-Yeong Hyun
Phone: 82-346-576-2204
Fax: 82-346-576-2205
E-Mail: ktemc@unitelco.kr

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

NVLAP LAB CODE 200221-0

**Tokin EMC Engineering Co., Ltd. Tsukuba
Testing Laboratory**

28-1, Aza-Kitahara
Ohaza- Hanashimashinden
Tsukuba-city, Ibaraki 305
JAPAN
Contact: Mr. Hiro Shida
Phone: 81-298-37-2400
Fax: 81-298-37-2401
E-Mail: shida@tee.tokin.co.jp

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200222-0

**NAWC-Aircraft Div. Lakehurst Electromagnetic
Interference Lab.**

Highway 547, 355-2, Code 48L500B
Lakehurst, NJ 08733-5100
Contact: Mr. Lee Taylor
Phone: 732-323-7782
Fax: 732-323-1844
E-Mail: Taylorlm@lakehurst.navy.mil
URL: <http://www.lakehurst.navy.mil>

MIL-STD-462 Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Conducted Emissions:

12/A01 MIL-STD-462 Method CE01
12/A04 MIL-STD-462 Method CE02
12/A06 MIL-STD-462 Method CE03
12/A12 MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01
12/B02 MIL-STD-462 Method CS02
12/B05 MIL-STD-462 Method CS06
12/B08 MIL-STD-462 Method CS10
12/B09 MIL-STD-462 Method CS11

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E04 MIL-STD-462 Method RS03 employing
RADHAZ procedures for high level testing
(Consult laboratory for field strengths
available)

NVLAP LAB CODE 200224-0

Northwestern Steel and Wire Company

121 Wallace Street
P.O. Box 618
Sterling, IL 61081
Contact: Mr. Thomas E. Murphy
Phone: 815-625-2500
Fax: 815-625-6445
E-Mail: tmurphy@nswsw.com

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Chemical Analysis

Optical emission spectrochemical analysis

FA/457 ASTM E415

NVLAP LAB CODE 200225-0

J.W. Mfg. DBA Van Petty Mfg.

2517 Azurite Circle

Newbury Park, CA 91320

Contact: Mr. Robert Bucholtz

Phone: 805-498-4594

Fax: 805-458-1021

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - hexagon and double hexagon (12 point) and spline sockets

FA/411 ANSI/ASME B18.3

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/405 ANSI/ASME B18.18.3M

External thread parameters - system 22

FA/382 FED-STD-H28/20

Surface texture

FA/439 ANSI/ASME B46.1

Mechanical and Physical Testing and Inspection

Double shear of externally threaded fasteners

FA/257 MIL-STD-1312-13

Rockwell hardness of fasteners

FA/201 MIL-STD-1312-6

Stress rupture of fasteners

FA/262 MIL-STD-1312-10

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

FA/295 MIL-STD-1312-8

Metallography

Decarburization and case depth measurement in fasteners

FA/323 ASTM E1077

Determination of grain size of fasteners

FA/331 ASTM E112

FA/550 ASTM E3

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

FA/551 ASTM E3

Microscopic examination of fasteners by etching

FA/512 ASTM E407

FA/552 ASTM E3

Nondestructive Inspection

Liquid penetrant inspection of fasteners

FA/527 ASTM E1417

Magnetic particle inspection of fasteners

FA/485 ASTM E1444

NVLAP LAB CODE 200229-0

Minebea Co., Ltd. Fujisawa Manufacturing Unit

1-1-1 Katase

Fujisawa, Kanagawa 251

JAPAN

Contact: Mr. Yukio Shimada

Phone: 0466-23-2137

Fax: 0466-27-6449

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Chemical Analysis

Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen

FA/472 ASTM E1447

Dimensional Inspection

Dimensions of fasteners - bearing surface squareness

FA/649 JIS B1071

Dimensions of fasteners - hexagon and double hexagon (12 point) and spline sockets

FA/539 SAE AS 870

FA/790 SBAC RS680

Dimensions of fasteners - straightness

FA/648 JIS B1071

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/607 JIS B1071

FA/791 NAS 527

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

FA/380 FED-STD-H28/20

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

FA/382 FED-STD-H28/20

External thread parameters - system 23

FA/385 ANSI/ASME B1.3M

FA/386 FED-STD-H28/20

Surface texture

FA/439 ANSI/ASME B46.1

FA/650 JIS B1071

FA/771 BS 1134, Part 1

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/271 MIL-STD-1312-8

FA/574 JIS B1051 Sec. 4.2.2

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued***Double shear of externally threaded fasteners***

FA/257 MIL-STD-1312-13

Elevated temperature testing capability

FA/505 MIL-STD-1312-18

Fatigue of full-size threaded fasteners

FA/183 MIL-STD-1312-11

Hardness preparation

FA/482 ASTM F606

Head soundness testing

FA/615 JIS B1051 Sec. 4.2.6

Humidity testing of fasteners

FA/170 QQ-P-35

Measurement of fastener coating thickness - dimensional change method

FA/495 MIL-STD-1312-12

Measurement of fastener coating thickness - eddy-current method

FA/618 JIS H8501

Measurement of fastener coating thickness - microscopical method

FA/163 MIL-STD-1312-12

FA/640 JIS H8501

Measurement of fastener coating thickness - weight of coating

FA/619 JIS H8501

Microhardness of fasteners

FA/193 MIL-STD-1312-6

FA/620 JIS Z2244

FA/642 JIS B1051 Sec. 4.2.5

Proof load of full-size externally threaded fasteners

FA/573 JIS B1051 Sec. 4.2.4

Recess strength test in both the installation and removal directions

FA/476 MIL-STD-1312-25

Rockwell hardness of fasteners

FA/197 ASTM E18

FA/201 MIL-STD-1312-6

FA/572 JIS Z2245

FA/707 JIS B1051 Sec. 4.2.5

FA/765 BS EN 10109-1

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

FA/209 MIL-STD-1312-6

FA/766 BS EN 10109-1

Salt spray testing of fasteners

FA/166 ASTM B117

FA/168 MIL-STD-1312-1

FA/569 JIS Z2371

Stress rupture of fasteners

FA/260 ASTM E139

FA/767 BS 4A 4, Part 1, Sec 3

Tension testing of machined specimens from externally threaded fasteners

FA/581 JIS B1051 Sec. 4.2.1

FA/582 JIS Z2241

FA/768 BS 4A 4, Part 1, Sec 1

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

FA/575 JIS B1051 Sec. 4.2.3

Metallography***Decarburization and case depth measurement in fasteners***

FA/645 JIS B1051

FA/692 MIL-STD-1312-6

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

FA/769 AMS 7477

FA/780 SBAC TS21

FA/782 SBAC TS22

FA/783 SBAC TS23

FA/786 SBAC TS24

FA/787 SBAC TS25

Microscopic examination of fasteners by etching

FA/512 ASTM E407

FA/770 AMS 7477

FA/781 SBAC TS21

FA/784 SBAC TS22

FA/785 SBAC TS23

FA/788 SBAC TS24

FA/789 SBAC TS25

Surface discontinuities of externally threaded fasteners

FA/603 JIS B1043

FA/646 JIS B1041

Nondestructive Inspection***Liquid penetrant inspection of fasteners***

FA/371 MIL-STD-6866

FA/527 ASTM E1417

Magnetic particle inspection of fasteners

FA/377 MIL-STD-1949

FA/485 ASTM E1444

NVLAP LAB CODE 200230-0**Wolverine Plating Corp.**

29456 Groesbeck Highway

Roseville, MI 48066-1943

Contact: Mr. Kenneth Wrobel

Phone: 810-771-5000

Fax: 810-771-5830

E-Mail: wolvpltg@aol.com

Fasteners & Metals

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Mechanical and Physical Testing and Inspection***Adhesion of metallic coatings on fasteners***

FA/143 ASTM B571

Measurement of fastener coating thickness - X-ray methods

FA/556 ASTM B568

Salt spray testing of fasteners

FA/166 ASTM B117

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 200231-0

U.S. EPA

P.O. Box 98517
Las Vegas, NV 89193-8517
Contact: Mr. Loyd D. Carroll
Phone: 702-798-2313
Fax: 702-798-2112
E-Mail: carroll.loyd@epa.gov

Ionizing Radiation Dosimetry

Accreditation Valid Through: December 31, 2000

This facility has been evaluated and deemed competent to process the radiation dosimeter listed below through employing the Panasonic automatic reader model UD710A.

This facility is accredited to process the following dosimeter by virtue of actual demonstration of compliance with ANSI HPS N13.11-1993.

Panasonic TLD model UD802AT in a UD874 holder for ANSI-N13.11 categories I, II, IIIA, IV, VC, VI, VII.

NVLAP LAB CODE 200232-0

LA Testing

159 Pasadena Avenue
S. Pasadena, CA 91030
Contact: Mr. Greg Vega
Phone: 323-254-9960
Fax: 323-254-9982
E-Mail: jcurulli@emsl.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200233-0

SGI EMC Laboratories

P.O. Box 7311
2011 N. Shoreline Blvd., MS 946
Mountain View, CA 94039
Contact: Mr. David M. Hanttula
Phone: 650-933-1071
Fax: 650-932-0250
E-Mail: hanttula@engr.sgi.com

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA

Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
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12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 200234-0

International Standards Laboratory

21, Alley 37, Lane 122, Sec. 2
Hsiwan Road
Hsichih Chen, Taipei 221
TAIWAN
Contact: Mr. Jammy Chen
Phone: 886-2-2646-2550
Fax: 886-2-2646-4641

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA
Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
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12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
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12/F01b	Radiated Emissions
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International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 200236-0

Accredited Environmental Technologies, Inc.

State Road 1426
Leland, NC 28451
Contact: Ms. Christina Vuocolo
Phone: 910-371-4620
Fax: 910-371-4908

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200237-0

Compliance Test Laboratories, Inc.

137 Airport Road
P.O. Box 120
Liberty, SC 29657
Contact: Mr. Pryor McGinnis
Phone: 864-843-1604
Fax: 864-843-1812
E-Mail: ctl@prodigy.net

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T50 AS/NZS 3260
12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
 Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
 to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
 measurement of radio disturbance
 characteristics of information technology
 equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of
 measurement of radio disturbance
 characteristics of information technology
 equipment, Amendment 1:1995, and
 Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
 Measurement of Radio Interference
 Characteristics of Information Technology
 Equipment

NVLAP LAB CODE 200239-0

Meidoh Laboratory

4-5 Sangen-Cho
Toyota, Aichi 471-0037
JAPAN
Contact: Mr. Satoki Akiba
Phone: 0565-31-0330
Fax: 0565-31-2153

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection

External thread parameters - system 21

FA/647 JIS B1071

Internal thread parameters - system 21

FA/623 JIS B1071

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/574 JIS B1051 Sec. 4.2.2

Measurement of fastener coating thickness - magnetic methods

FA/596 JIS H8501

Measurement of fastener coating thickness - microscopical method

FA/640 JIS H8501

Microhardness of fasteners

FA/620 JIS Z2244

FA/642 JIS B1051 Sec. 4.2.5

Proof load of internally threaded fasteners (nuts)

FA/601 JIS B1052

Salt spray testing of fasteners

FA/598 JIS H8502

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/571 JIS Z2244

FA/643 JIS B1051 Sec. 4.2.5

FA/684 JIS B1052

Wedge tensile strength of full-size threaded fasteners

FA/575 JIS B1051 Sec. 4.2.3

NVLAP LAB CODE 200240-0

CAM Environmental Services, Inc.

312 South Richey Street
Pasadena, TX 77506-1059
Contact: Mr. Brian Akins
Phone: 713-475-9003
Fax: 713-472-2117
E-Mail: camakins@earthlink.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200245-0

National Technical Systems

1701 East Plano Parkway, Suite 150
Plano, TX 75074-8127
Contact: Mr. Michael Cantwell
Phone: 972-509-2566
Fax: 972-509-0073
E-Mail: mcantwell@rheintexas.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
- 12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200246-0

Underwriters Laboratories, Inc.

12 Laboratory Drive
Research Triangle Park, NC 27709
Contact: Mr. Rick A. Titus
Phone: 847-272-8800 x43281
Fax: 847-509-6219
E-Mail: titusr@ul.com
URL: http://www.ul.com

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP
Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

- 12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
- 12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference

Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200248-0

Orfield Laboratories, Inc.

2709 E. 25th Street
Minneapolis, MN 55406
Contact: Mr. Steven J. Orfield
Phone: 612-721-2455
Fax: 612--721-2457
E-Mail: steve.orfieldlabs.com
URL: http://www.orfield.labs.com

Acoustical Testing Services

Accreditation Valid Through: June 30, 2000

NVLAP
Code Designation

- 08/P03 ASTM C423 (ISO 354)
08/P06 ASTM E90 (ISO 140, Part 3)
08/P10 ANSI S12.31 (ISO 3741)
08/P21 ISO 3745
08/P30 ASTM E1408
08/P31 ASTM E336
08/P32 ASTM E1007
08/P37 ASTM E966

NVLAP LAB CODE 200249-0

Quest MicroAnalytics

2530 Electronic Lane, Suite 712
Dallas, TX 75220-1229
Contact: Ms. Jennifer Jaber
Phone: 214-351-4441
Fax: 214-351-4487
E-Mail: questmic@flash.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200250-0

ATC Associates Inc.

8989 Herrmann Drive, Suite 300
Columbia, MD 21045-4710
Contact: Ms. Dawn E. Suszynski
Phone: 410-381-0232
Fax: 410-381-8908

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200251-0

Storagetek Open Area Test Site

One Storagetek Drive
Louisville, CO 80028-9172
Contact: Mr. Robert B. Reinert
Phone: 303-673-6256
Fax: 303-661-6717
E-Mail: reinerb@louisville.stortek.com

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200252-0

Underwriters Laboratories

1655 Scott Blvd.
Santa Clara, CA 95050
Contact: Mr. Rick A. Titus
Phone: 847-272-8800 x43281
Fax: 847-509-6321
E-Mail: Rick.A.Titus@us.ul.com
URL: http://www.ul.com

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

*ACA Technical Standards as determined under the
Telecommunications Act of 1997*

12/T41 ACA TS-001
12/T42 ACA TS-002
12/T44 ACA TS-004
12/T45 ACA TS-006

Australian Standards referred to by clauses in ACA

Technical Standards

12/T50 AS/NZS 3260
12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions
12/T01 Terminal Equipment Network Protection
Standards, FCC Method - 47 CFR Part 68 -
Analog and Digital
12/T01a 68.302 (Par. c,d,e,f) Environmental simulation;
68.304 Leakage current limit.; 68.306
Hazardous voltage limit.; 68.308 Signal power
limit.; 68.310 Longitudinal balance limit.;
68.312 On-hook impedance limit.; 68.314
Billing protection
12/T01b 68.316 Hearing Aid Compatibility: technical
standards
12/T01c 68.302 Environmental simulation (Par. a,b)

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200253-0

CBS Fasteners, Inc.

1345 N. Brasher Street
Anaheim, CA 92807
Contact: Mr. Bill Sisler
Phone: 714-779-6368
Fax: 714-779-0934

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Dimensional Inspection

*Dimensions of fasteners - hexagon and double hexagon
(12 point) and spline sockets*

FA/411 ANSI/ASME B18.3

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued*Dimensions of fasteners - straightness*

FA/423 ANSI/ASME B18.2.1

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/404 ANSI/ASME B18.18.2M

External thread parameters - system 22

FA/382 FED-STD-H28/20

Surface texture

FA/439 ANSI/ASME B46.1

Mechanical and Physical Testing and Inspection*Axial tensile strength of full-size threaded fasteners*

FA/271 MIL-STD-1312-8

Double shear of externally threaded fasteners

FA/257 MIL-STD-1312-13

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/176 MIL-STD-1312-5

Magnetic permeability

FA/214 ASTM A342 Test Method 3

Measurement of fastener coating thickness - dimensional change method

FA/495 MIL-STD-1312-12

Measurement of fastener coating thickness - microscopical method

FA/163 MIL-STD-1312-12

Microhardness of fasteners

FA/193 MIL-STD-1312-6

Recess strength test in both the installation and removal directions

FA/476 MIL-STD-1312-25

Rockwell hardness of fasteners

FA/201 MIL-STD-1312-6

Rockwell superficial hardness of fasteners

FA/209 MIL-STD-1312-6

Single shear of externally threaded fasteners

FA/256 MIL-STD-1312-20

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/671 MIL-STD-1312-6

Wedge tensile strength of full-size threaded fasteners

FA/295 MIL-STD-1312-8

Metallography*Decarburization and case depth measurement in fasteners*

FA/330 SAE J423

FA/483 ASTM A574 Sec. 12

Determination of grain size of fasteners

FA/638 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

FA/651 ASTM F788/788M

Microscopic examination of fasteners by etching

FA/341 ASTM E1077

FA/345 ASTM F788/788M

FA/351 ASTM E112

FA/512 ASTM E407

FA/552 ASTM E3

FA/679 ASTM A574

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

NVLAP LAB CODE 200254-0**Vermont Fasteners Manufacturing**

50 Jonergin Drive

P.O. Box 50

Swanton, VT 05488-0050

Contact: Mr. Peter F. Kasper

Phone: 802-868-3663

Fax: 802-868-2089

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

*NVLAP**Code Designation***Dimensional Inspection***Dimensions of fasteners - straightness*

FA/423 ANSI/ASME B18.2.1

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/403 ANSI/ASME B18.18.1M

FA/404 ANSI/ASME B18.18.2M

FA/494 ANSI B18.2.1

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/405 ANSI/ASME B18.18.3M

FA/963 ANSI B18.2.1

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection*Axial tensile strength of full-size threaded fasteners*

FA/265 ASTM A370 Sec. A3.2.1.4

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/273 SAE J429

Brinell hardness of fasteners

FA/185 ASTM A370 Sec. 16

FA/186 ASTM E10

Cone proof load of internally threaded fasteners (nuts)

FA/219 ASTM F812/F812M

FA/220 ASTM F606 Sec. 4.3

FA/655 ASTM A194/A194M

Hardness preparation

FA/482 ASTM F606

Measurement of fastener coating thickness - eddy-current method

FA/149 ASTM E376

Measurement of fastener coating thickness - magnetic methods

FA/155 ASTM E376

Microhardness of fasteners

FA/654 SAE J121

Proof load of full-size externally threaded fasteners

FA/225 ASTM A370 Sec. A3.2.1.1-A3.2.1.3

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

FA/467 ASTM F606M Sec. 3.2.1-3.2.3

Proof load of internally threaded fasteners (nuts)

FA/235 ASTM A370 Sec. A3.5.1

FA/236 ASTM F606 Sec. 4.2

FA/237 ASTM F606M Sec. 4.2

Rockwell hardness of fasteners

FA/196 ASTM A370 Sec. 18

FA/197 ASTM E18

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

FA/206 ASTM A370 Sec. 18

Rotational capacity of full-size fasteners

FA/243 ASTM A325

FA/245 ASTM A563

FA/965 AASHTO M164

Wedge tensile strength of full-size threaded fasteners

FA/289 ASTM A370

FA/290 ASTM F606 Sec. 3.5

FA/291 ASTM F606M Sec. 3.5

FA/468 SAE J429 Sec. 5.5

Metallography

Decarburization and case depth measurement in fasteners

FA/328 SAE J121

FA/964 ASTM A490

Macroscopic examination of fasteners by etching

FA/336 SAE J123

FA/337 SAE J1061

FA/651 ASTM F788/788M

Microscopic examination of fasteners by etching

FA/344 SAE J121

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

FA/361 SAE J123

FA/362 SAE J1061

FA/652 ASTM A490

Surface discontinuities of internally threaded fasteners

FA/363 ASTM F812

FA/365 SAE J122

Nondestructive Inspection

Magnetic particle inspection of fasteners

FA/374 ASTM E709

NVLAP LAB CODE 200255-0

Rockford Bolt & Steel Co.

126 Mill Street

Rockford, IL 61101

Contact: Mr. John Petty

Phone: 815-968-0514

Fax: 815-968-3111

Fasteners & Metals

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - straightness

FA/423 ANSI/ASME B18.2.1

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

Hardness preparation

FA/482 ASTM F606

Rockwell hardness of fasteners

FA/202 SAE J417

Tension testing of machined specimens from externally threaded fasteners

FA/278 ASTM A370

FA/279 ASTM F606 Sec. 3.6

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4

FA/299 ASTM A370 Sec. A3.2.1.3(a)

NVLAP LAB CODE 200256-0

Sundram Fasteners Limited Chemical Testing Laboratory

Bonthapally Village, Medak District

Andhra Pradesh 502 313

INDIA

Contact: Mr. Sampathkumar Moorthy

Phone: 91-44-8521870

Fax: 91-44-853-5435

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Chemical Analysis

Optical emission spectrochemical analysis

FA/457 ASTM E415

NVLAP LAB CODE 200258-0

W.R. Grace & Co.

62 Whittemore Avenue
Cambridge, MA 02140
Contact: Mr. James A. Lee
Phone: 617-498-4394
Fax: 617-498-4360
E-Mail: james.a.lee@grace.com

Construction Materials Testing

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Aggregates

02/A03 ASTM C29
02/A04 ASTM C40
02/A07 ASTM C117
02/A09 ASTM C127
02/A10 ASTM C128
02/A12 ASTM C136
02/A15 ASTM D75
02/A44 ASTM C566

Cement

02/A17 ASTM C109
02/A21 ASTM C157
02/A23 ASTM C185
02/A26 ASTM C191
02/A27 ASTM C204
02/A30 ASTM C266
02/A31 ASTM C305
02/A32 ASTM C430
02/A33 ASTM C451

Concrete

02/A01 ASTM C39
02/A02 ASTM C617
02/A40 ASTM C78
02/A41 ASTM C192
02/A43 ASTM C1064
02/A45 ASTM C42
02/A47 ASTM C457
02/G01 ASTM C31/C172/C143/C138/C231
02/G02 ASTM C173

Standard Practices

02/A39 ASTM C1077

NVLAP LAB CODE 200259-0

PFU TECHNOCONSUL EMC Center

98-2 Nu, Unoke, Unoke-Machi, Kahoku-Gun
Ishikawa-Ken 929-1192
JAPAN
Contact: Mr. Youichi Masui
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Fax: 81-76-283-8601
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FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200260-0

Analab, LLC

P.O. Box 34
Spring Hill Road
Sterling, PA 18463
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Phone: 570-689-3919
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FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology

Equipment

NVLAP LAB CODE 200261-0

Prottsa, S.A. de C.V.
 Oriente 233 No. 91 Agricola Oriental
 C.P. 08500
 Mexico City
 MEXICO
 Contact: Mr. Gilberto Laguna
 Phone: 5-558-85-77
 Fax: 5-558-25-23
 E-Mail: prottsa@dfi.telmex.net.mx

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/403 ANSI/ASME B18.18.1M

FA/981 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

Bend test of full size eyebolts

FA/982 AAR 4-2-15 Section 8 (1969)

Cone proof load of internally threaded fasteners (nuts)

FA/220 ASTM F606 Sec. 4.3

Hardness preparation

FA/482 ASTM F606

Measurement of fastener coating thickness - magnetic methods

FA/153 ASTM B499

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

FA/983 AAR 4-2-15 Section 9 (1969)

Proof load of internally threaded fasteners (nuts)

FA/235 ASTM A370 Sec. A3.5.1

FA/236 ASTM F606 Sec. 4.2

Rockwell hardness of fasteners

FA/196 ASTM A370 Sec. 18

Tension testing of machined specimens from externally threaded fasteners

FA/279 ASTM F606 Sec. 3.6

Torque-tension of full-size threaded fasteners

FA/984 AAR 4-2-15 Section 13b (1969)

FA/985 ASTM A183 Section 8.2.2

FA/986 Prottsa W.I. 1.030 rev. b

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4

NVLAP LAB CODE 200263-0

EMM Office Yokohama Tech. Center Murata Mfg. Co., Ltd.
 Yokohama Technical Center
 1-18 Hakusan 1-Chome, Midori-ku Yokohama
 Kanagawa 226-006
 JAPAN
 Contact: Mr. Yuzo Katayama
 Phone: 045-939-7100
 Fax: 045-939-7156
 E-Mail: katayama@murata.co.jp

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

NVLAP LAB CODE 200265-0

R & D Services, Inc.

2594 West Broad Street
 P.O. Box 2400
 Cookeville, TN 38502-2400
 Contact: Mr. Ronald S. Graves
 Phone: 931-372-8871
 Fax: 931-525-3896
 E-Mail: rdserv@usit.net
 URL: http://rdservices.com

Thermal Insulation Materials

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Corrosiveness

01/C01 ASTM C739 (Sec. 9)

01/C02 16 CFR-Part 1209.5

Flammability

01/F08 16 CFR-Part 1209.7

01/F10 ASTM C739 (Sec. 14)

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Mass, Density, and Dimensional Stability**

01/D02 ASTM C167
01/D26 16 CFR-Part 1209.4
01/D27 ASTM C739 (Sec. 8)

Related Material Properties

01/V05 ASTM C739 (Sec. 11)
01/V06 ASTM C739 (Sec. 15)

Thermal Resistance

01/T06 ASTM C518
01/T10 ASTM C687

NVLAP LAB CODE 200268-0**The Monadnock Company**

18301 East Arenth Avenue
City of Industry, CA 91748-1288
Contact: Mr. Belen Guevara
Phone: 626-964-6581
Fax: 626-965-5481

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection**Dimensions of fasteners - bearing surface squareness**

FA/633 MIL-N-25027

External thread parameters - system 21

FA/380 FED-STD-H28/20

External thread parameters - system 22

FA/382 FED-STD-H28/20

External thread parameters - system 23

FA/386 FED-STD-H28/20

Internal thread parameters - system 21

FA/392 FED-STD-H28/20

Internal thread parameters - system 22

FA/394 FED-STD-H28/20

Internal thread parameters - system 23

FA/398 FED-STD-H28/20

Surface texture

FA/439 ANSI/ASME B46.1

Mechanical and Physical Testing and Inspection**Adhesion of metallic coatings on fasteners**

FA/779 BSS 7225

Axial tensile strength of full-size threaded fasteners

FA/271 MIL-STD-1312-8

FA/757 MIL-STD-1312-23

Compression load of compressible-washer-type direct tension indicators

FA/778 BACW10CA

Copper sulfate test - test for free iron on the surface of corrosion resistant fasteners

FA/636 MIL-STD-753 Test 102

Hydrogen embrittlement (stress durability) of internally threaded fasteners

FA/178 MIL-STD-1312-14

FA/772 BACN10YD

FA/773 BACN10FX

FA/888 BACN11K

Magnetic permeability

FA/214 ASTM A342 Test Method 3

Measurement of fastener coating thickness - eddy-current method

FA/148 ASTM B244

Measurement of fastener coating thickness - microscopical method

FA/160 ASTM B487

Microhardness of fasteners

FA/193 MIL-STD-1312-6

Prevailing torque

FA/630 MIL-N-25027

Reusability test of self-locking internally threaded fasteners

FA/124 MIL-N-25027

FA/774 BPS-N-70

Rockwell hardness of fasteners

FA/201 MIL-STD-1312-6

Rockwell superficial hardness of fasteners

FA/209 MIL-STD-1312-6

Torque-out test

FA/133 MIL-N-25027

FA/775 BACN10YD

FA/776 BACN10VR

FA/777 BACN10FX

FA/887 BACN11K

Water immersion method - test for anodic surface contaminants on corrosion resistant faste

FA/756 MIL-STD-753 Test 100

Wrench torque test of externally wrenching nuts of spline and hexagon and double hexagon (1

FA/141 MIL-N-25027

NVLAP LAB CODE 200271-0**Aerospace NYLOK - a subsidiary of the NYLOK Fastener Corporation**

11 Thomas Road South
Hawthorne, NJ 07507-0651
Contact: Mr. Chet Radwan
Phone: 973-427-8555
Fax: 973-427-4723

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection**Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap**

FA/805 MIL-DTL-18240

FA/806 MIL-F-18240

Mechanical and Physical Testing and Inspection

Prevailing torque

FA/217	IFI-100/107
FA/794	MIL-DTL-18240
FA/795	IFI 124
FA/796	MIL-F-18240
FA/797	IFI 125
FA/798	IFI 524
FA/833	IFI 525

Reusability test of self-locking internally threaded fasteners

FA/792	MIL-F-18240 (externally and internally threaded)
FA/793	MIL-DTL-18240 (externally and internally threaded)

NVLAP LAB CODE 200272-0

NYLOK Fastener Corporation

313 North Euclid Way
Anaheim, CA 92801-6738
Contact: Mr. Maynard Axvig
Phone: 714-635-3993
Fax: 714-635-9553
E-Mail: sales@nylokfastener.com
URL: http://www.nylok.com

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/802	NYLOK TP-NW-5.0
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External thread parameters - system 21

FA/379	ANSI/ASME B1.3M
FA/380	FED-STD-H28/20

External thread parameters - system 22

FA/381	ANSI/ASME B1.3M
FA/382	FED-STD-H28/20
FA/383	MIL-S-7742
FA/384	MIL-S-8879
FA/534	SAE AS 8879
FA/803	ASME B1.15

Internal thread parameters - system 21

FA/391	ANSI/ASME B1.3M
FA/392	FED-STD-H28/20

Internal thread parameters - system 22

FA/393	ANSI/ASME B1.3M
FA/394	FED-STD-H28/20
FA/395	MIL-S-7742
FA/396	MIL-S-8879
FA/537	SAE AS 8879
FA/804	ASME B1.15

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/266	ASTM F606 Sec. 3.4.1-3.4.3
FA/799	NASM 1312-8

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/801	QQ-P-416
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Hydrogen embrittlement (stress durability) of internally threaded fasteners

FA/800	QQ-P-416
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Prevailing torque

FA/217	IFI-100/107
FA/794	MIL-DTL-18240
FA/795	IFI 124
FA/796	MIL-F-18240
FA/797	IFI 125
FA/798	IFI 524

Reusability test of self-locking internally threaded fasteners

FA/792	MIL-F-18240
FA/793	MIL-DTL-18240

NVLAP LAB CODE 200273-0

NYLOK Fastener Corporation

Macomb Plant Testing Lab
15260 Hallmark Drive
Macomb, MI 48042-4007
Contact: Mr. Clifford Terry
Phone: 810-786-0100
Fax: 810-786-0498

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/802	NYLOK TP-NW-5.0
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Mechanical and Physical Testing and Inspection

Prevailing torque

FA/216	ANSI B18.16.1M
FA/217	IFI-100/107
FA/557	DIN 267, Part 15
FA/794	MIL-DTL-18240
FA/795	IFI 124
FA/796	MIL-F-18240
FA/797	IFI 125
FA/798	IFI 524
FA/807	GM 6189P
FA/808	Ford ES382101-S100
FA/809	Ford ES-N800688-S100
FA/810	Ford ES-384103-S-A
FA/811	Ford WA 970
FA/812	Ford ES-F77U-9E926-AA
FA/813	Chrysler PF-5077
FA/814	Chrysler PF-5144
FA/815	Chrysler PF-5461
FA/816	Chrysler PF-5683
FA/817	Chrysler PF-6157
FA/818	Chrysler PF-6158

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

FA/819	DIN 267, Part 27
FA/820	Navistar 0810
FA/821	GM TES-113
FA/822	Bendix W1287
FA/823	Mack Trucks 10AMSI
FA/824	Mack Trucks 3AXS5
FA/825	Mack Trucks 6AXS5
FA/826	Allied Signal WI-504
FA/827	GM 6175M/6194M
FA/828	Ford ES-20010-S100
FA/829	Ford ES-20007-S100
FA/830	Ford WX 200
FA/831	Ford WSS-M11P45-A1
FA/832	Ford ESS-M11P24-A1
FA/833	IFI 525
FA/834	Rockwell International Q-29
FA/835	Ford ES-N804199-S192
FA/836	Ford WE 950
FA/837	Ford ES-21002-S100
FA/838	Ford ES-21006-S100
FA/839	Ford ES-21000-S100
FA/840	Chrysler MS-CD914
FA/841	GM 6076M
FA/842	Chrysler PS-8542
<i>Torque-tension of full-size threaded fasteners</i>	
FA/307	MIL-STD-1312-15
FA/308	SAE J174

NVLAP LAB CODE 200274-0**Kyowa Kogyosyo Co., Ltd. Test Laboratory**

1-57, Kogyo-Danchi
Komatsu City, Ishikawa
JAPAN

Contact: Mr. Mataichi Fukuda
Phone: 81-761-21-0531
Fax: 81-761-21-0533

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

<i>NVLAP</i>	<i>Designation</i>
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Dimensional Inspection***Dimensions of ISO grade A and B fasteners***

FA/589	JIS B1071
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Dimensions of fasteners - bearing surface squareness

FA/649	JIS B1071
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Dimensions of fasteners - straightness

FA/648	JIS B1071
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External thread parameters - system 21

FA/647	JIS B1071
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Surface texture

FA/650	JIS B1071
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Mechanical and Physical Testing and Inspection***Axial tensile strength of full-size threaded fasteners***

FA/266	ASTM F606 Sec. 3.4.1-3.4.3
FA/574	JIS B1051 Sec. 4.2.2

Charpy impact (u-notch) testing

FA/845	JIS Z2242
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Hardness preparation

FA/482	ASTM F606
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Measurement of fastener coating thickness - magnetic methods

FA/596	JIS H8501
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Microhardness of fasteners

FA/620	JIS Z2244
--------	-----------

FA/642	JIS B1051 Sec. 4.2.5
--------	----------------------

Proof load of full-size externally threaded fasteners

FA/573	JIS B1051 Sec. 4.2.4
--------	----------------------

Rockwell hardness of fasteners

FA/197	ASTM E18
--------	----------

FA/572	JIS Z2245
--------	-----------

FA/707	JIS B1051 Sec. 4.2.5
--------	----------------------

Tension testing of machined specimens from externally threaded fasteners

FA/581	JIS B1051 Sec. 4.2.1
--------	----------------------

FA/582	JIS Z2241
--------	-----------

Wedge tensile strength of full-size threaded fasteners

FA/290	ASTM F606 Sec. 3.5
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FA/575	JIS B1051 Sec. 4.2.3
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Metallography***Decarburization and case depth measurement in fasteners***

FA/645	JIS B1051
--------	-----------

Surface discontinuities of externally threaded fasteners

FA/603	JIS B1043
--------	-----------

NVLAP LAB CODE 200275-0**NYLOK Fastener Corporation - Chicago Testing Laboratory**

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Phone: 800-446-5956
Fax: 847-674-1269

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

<i>NVLAP</i>	<i>Designation</i>
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Dimensional Inspection***Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap***

FA/850	NYLOK TP-NC-5.0
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Mechanical and Physical Testing and Inspection***Prevailing torque***

FA/846	NYLOK TP-NC-1.0
FA/847	NYLOK TP-NC-2.0
FA/848	NYLOK TP-NC-3.0
FA/849	NYLOK TP-NC-4.0

NVLAP LAB CODE 200278-0
Casey Products, Inc.

1955 University Lane
Lisle, IL 60532-4149
Contact: Mr. Michael B. Connelly, CQE
Phone: 630-960-3360
Fax: 630-960-3419
E-Mail: mbconnelly@aol.com

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection
Dimensions of ISO grade A and B fasteners

FA/407 ISO 3269

FA/408 ISO 4759-1

Dimensions of ISO grade C fasteners

FA/409 ISO 3269

FA/410 ISO 4759-1

Dimensions of fasteners - hexagon and double hexagon (12 point) and spline sockets

FA/411 ANSI/ASME B18.3

FA/412 ANSI/ASME B18.3.1M

FA/413 ANSI/ASME B18.3.3M

FA/414 ANSI/ASME B18.3.4M

FA/415 ANSI/ASME B18.3.5M

FA/416 ANSI/ASME B18.3.6M

Dimensions of fasteners - straightness

FA/423 ANSI/ASME B18.2.1

FA/424 ANSI/ASME B18.2.3.1M

FA/425 ANSI/ASME B18.2.3.2M

FA/426 ANSI/ASME B18.2.3.3M

FA/427 ANSI/ASME B18.2.3.4M

FA/428 ANSI/ASME B18.2.3.5M

FA/429 ANSI/ASME B18.2.3.6M

FA/433 ANSI/ASME B18.5.2.2M

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/403 ANSI/ASME B18.18.1M

FA/404 ANSI/ASME B18.18.2M

FA/486 MIL-STD-120 (W/ Notice dtd 9 SEP 63)

FA/870 ANSI/ASME B1.16M

FA/871 ANSI/ASME B1.2

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/405 ANSI/ASME B18.18.3M

FA/406 ANSI/ASME B18.18.4M

External thread parameters - ISO

FA/390 ISO 1502

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

Internal thread parameters - ISO

FA/402 ISO 1502

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection
Axial tensile strength of full-size threaded fasteners

FA/265 ASTM A370 Sec. A3.2.1.4

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/267 ASTM F606M Sec. 3.4.1-3.4.3

FA/270 ISO 898-1 Sec. 8.2

FA/273 SAE J429

FA/274 SAE J1216

Hardness preparation

FA/464 ASTM F606M

FA/482 ASTM F606

Measurement of fastener coating thickness - eddy-current method

FA/149 ASTM E376

Measurement of fastener coating thickness - magnetic methods

FA/155 ASTM E376

Microhardness of fasteners

FA/189 ASTM E384

Prevailing torque

FA/217 IFI-100/107

Proof load of full-size externally threaded fasteners

FA/225 ASTM A370 Sec. A3.2.1.1-A3.2.1.3

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

FA/228 ISO 898-1 Sec. 8.4

FA/229 SAE J429 Sec. 5.3

FA/467 ASTM F606M Sec. 3.2.1-3.2.3

FA/577 SAE J1216 Sec. 3.3

Proof load of internally threaded fasteners (nuts)

FA/235 ASTM A370 Sec. A3.5.1

FA/236 ASTM F606 Sec. 4.2

FA/237 ASTM F606M Sec. 4.2

FA/239 ISO 898-2 Sec. 8.1

FA/241 SAE J995 Sec. 5.1

Rockwell hardness of fasteners

FA/196 ASTM A370 Sec. 18

FA/197 ASTM E18

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

FA/206 ASTM A370 Sec. 18

Test for embrittlement of metallic coated externally threaded fasteners

FA/179 ASTM F606 Sec. 7

FA/180 ASTM F606M Sec. 7

Total extension at fracture of externally threaded fasteners

FA/285 ASTM F606 Sec. 3.7

FA/286 ASTM F606M Sec. 3.7

Wedge tensile strength of full-size threaded fasteners

FA/289 ASTM A370

FA/290 ASTM F606 Sec. 3.5

FA/291 ASTM F606M Sec. 3.5

FA/294 ISO 898-1 Sec. 8.5

FA/468 SAE J429 Sec. 5.5

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

FA/469 SAE J1216 Sec. 3.6
Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4
FA/300 ASTM F606M Sec. 3.2.4

Metallography***Decarburization and case depth measurement in fasteners***

FA/323 ASTM E1077
FA/324 ISO 898-1
FA/325 ISO 898-5
FA/328 SAE J121
FA/329 SAE J419
FA/330 SAE J423
FA/483 ASTM A574 Sec. 12
FA/519 ASTM A574M
FA/520 ASTM F835
FA/758 SAE J121M
FA/866 ASTM F835M
FA/867 ASTM F912
FA/868 ASTM F912M

Determination of grain size of fasteners

FA/638 ASTM E112

Macroscopic examination of fasteners by etching

FA/484 ASTM E381
FA/511 ASTM E340

Microscopic examination of fasteners by etching

FA/512 ASTM E407

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M
FA/359 ISO 6157-1
FA/360 ISO 6157-3
FA/361 SAE J123
FA/362 SAE J1061
FA/859 ASTM A574
FA/860 ASTM A574M
FA/861 ASTM F835
FA/862 ASTM F835M
FA/863 ASTM F912
FA/864 ASTM F912M

Surface discontinuities of internally threaded fasteners

FA/365 SAE J122
FA/727 ISO 6157-2
FA/865 ASTM F812/F812M

NVLAP LAB CODE 200281-0**Fujitsu Evaluation Engineering Laboratory**

140 Miyamoto
Numazu, Shizuoka-Pref. 410-0396
JAPAN
Contact: Mr. Yoshiyuki Okita
Phone: 81-559-24-7209
Fax: 81-559-24-6183
E-Mail: okita@psl.fujitsu.co.jp

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200282-0**Electronics Test Centre**

302 Legget Drive, Unit 100
Kanata, Ont. K2K 1Y5
CANADA
Contact: Mr. Dave Scribailo
Phone: 613-599-6800
Fax: 613-599-7614
E-Mail: daves@mpb-technologies.ca

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200283-0

Duro-Test Corporation

185 Scoles Avenue
Clifton, NJ 07012
Contact: Ms. Lin Lin
Phone: 973-472-1900
Fax: 973-472-4103
E-Mail: LLin@duro-test.com

Energy Efficient Lighting Products

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Color Measurements

22/C01 IES LM-58

Electrical Measurements

22/E01 IES LM-9

22/E02 IES LM-45

22/E03 IES LM-51

22/E04 IES LM-66

Photometric Measurements

22/P01a IES LM-9 (Total Flux)

22/P02a IES LM-20 (Total Flux)

22/P03a IES LM-45 (Total Flux)

22/P04a IES LM-51 (Total Flux)

22/P05a IES LM-66 (Total Flux)

NVLAP LAB CODE 200286-0

Fwu Kuang Enterprises Co., Ltd.

No. 239, Lane 202, Chung Cheng W. Road,
Erh-Hang Tsum, Jen-Te Hsiang
Tainan Hsien
TAIWAN
Contact: Mr. Larry Chou
Phone: 886-6-2625343
Fax: 886-6-2665439

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection

External thread parameters - ISO

FA/390 ISO 1502

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/267 ASTM F606M Sec. 3.4.1-3.4.3

Measurement of fastener coating thickness - eddy-current method

FA/149 ASTM E376

Microhardness of fasteners

FA/189 ASTM E384

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

FA/467 ASTM F606M Sec. 3.2.1-3.2.3

Rockwell hardness of fasteners

FA/197 ASTM E18

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

Torque-tension of full-size threaded fasteners

FA/938 ASTM F912

FA/939 ASTM F912M

FB/1092 ISO 898-5

Total extension at fracture of externally threaded fasteners

FA/285 ASTM F606 Sec. 3.7

FA/286 ASTM F606M Sec. 3.7

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

FA/291 ASTM F606M Sec. 3.5

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4

FA/300 ASTM F606M Sec. 3.2.4

Metallography

Decarburization and case depth measurement in fasteners

FA/325 ISO 898-5

FA/867 ASTM F912

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

NVLAP LAB CODE 200287-0

Small IAC Test Laboratory

107 Park St. N
Peterborough, ON K9J-7B5
CANADA
Contact: Ms. Nancy Edgar-Ward
Phone: 705-748-7125
Fax: 705-748-7677
E-Mail: Nancy.edgar-ward@indsys.ge.com

Efficiency of Electric Motors

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

24/M01 IEEE 112, Method B

NVLAP LAB CODE 200288-0

Fong Prean Industrial Co., Ltd.

No. 6 Kung-Wei St. Tzu Hsin T'Sun
Tzu Kuan Hsiang
Kaohsiung Hsien
TAIWAN
Contact: Mr. Chang San Tien
Phone: 886-7-6170526
Fax: 886-7-6103160

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Fasteners & Metals**

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection*Dimensions of general purpose fasteners and high-volume machine assembly fasteners*

FA/854 ANSI/ASME B18.6.4

FA/855 ISO 1479

Mechanical and Physical Testing and Inspection**Drill-drive test**

FA/247 SAE J78

FA/851 DIN 7504

Hardness preparation

FA/464 ASTM F606M

FA/482 ASTM F606

Measurement of fastener coating thickness - X-ray methods

FA/760 ASTM A754/A754M

Microhardness of fasteners

FA/189 ASTM E384

Rockwell hardness of fasteners

FA/197 ASTM E18

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

Salt spray testing of fasteners

FA/166 ASTM B117

Torsional strength test of thread rolling and self-drilling tapping screws

FA/751 SAE J933

FA/852 ISO 2702

FA/853 DIN 7504

Metallography*Decarburization and case depth measurement in fasteners*

FA/330 SAE J423

FA/562 ASTM G79

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

FA/361 SAE J123

NVLAP LAB CODE 200291-0**NGC Testing Services, National Gypsum Research Center**

1650 Military Road

Buffalo, NY 14217-1198

Contact: Mr. Robert J. Menchetti

Phone: 716-873-9750

Fax: 716-873-9753

E-Mail: rjmenchetti@nationalgypsum.comURL: <http://www.national-gypsum.com/testing/index.html>**Acoustical Testing Services**

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

08/P03 ASTM C423

08/P06 ASTM E90

08/P30 ASTM E1408

08/P34 ASTM E1414

08/P44 ISO 354

08/P45 ISO 140, Part 3

08/P49 AMA-1-II-67

08/P50 ISO 140, Part 9

NVLAP LAB CODE 200292-0**BCAG Fastener Quality Test Lab Everett Site**

P.O. Box 370, MS 04-02

Seattle, WA 98124-2207

Contact: Mr. Eugene J. Brown

Phone: 425-342-3888

Fax: 425-266-4673

E-Mail: eugene.j.brown@boeing.com**Fasteners & Metals**

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Chemical Analysis*Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen*

FA/472 ASTM E1447

Optical emission spectrochemical analysis

FA/456 ASTM E327

FA/457 ASTM E415

FA/458 ASTM E607

FA/459 ASTM E1086

FA/460 ASTM E1251

Spot test analysis

FB/1076 D1-8018-2

Dimensional Inspection*Dimensions of fasteners - bearing surface squareness*

FA/911 BPS-N-70

Dimensions of fasteners - gaging for slotted nuts

FA/417 ANSI/ASME B18.2.2

FA/418 ANSI/ASME B18.2.4.3M

Dimensions of fasteners - straightness

FA/423 ANSI/ASME B18.2.1

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/405 ANSI/ASME B18.18.3M

FA/406 ANSI/ASME B18.18.4M

FB/1060 BPS-F-69

FB/1061 BPS-F-76

FB/1062 BPS-F-67

FB/1063 D-11805

FB/1064 BPS-N-70

FB/1065 BPS-F-68

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

FA/382 FED-STD-H28/20

FA/383 MIL-S-7742

FA/384 MIL-S-8879

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M
FA/392 FED-STD-H28/20
FA/529 MIL-S-7742

Surface texture

FA/439 ANSI/ASME B46.1

Mechanical and Physical Testing and Inspection

Adhesion of metallic coatings on fasteners

FA/532 BMS 10-85M Sec. 8.2

Axial tensile strength of full-size threaded fasteners

FA/271 MIL-STD-1312-8
FA/799 NASM 1312-8
FB/1067 D2-2860

Double shear of externally threaded fasteners

FA/257 MIL-STD-1312-13
FA/880 NASM 1312-13
FB/1066 D2-2860
FB/1070 NAS 498

Fatigue of full-size threaded fasteners

FA/183 MIL-STD-1312-11
FA/184 NAS 1069
FA/876 NASM 1312-11
FB/1038 D2-2860

Hardness preparation

FB/1071 NAS 498

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/176 MIL-STD-1312-5
FA/801 QQ-P-416
FA/875 NASM 1312-5

Hydrogen embrittlement (stress durability) of internally threaded fasteners

FA/178 MIL-STD-1312-14
FA/800 QQ-P-416
FB/1033 NASM 1312-14

Intergranular corrosion susceptibility of austenitic stainless steel fasteners - oxalic acid

FA/174 ASTM A262 Sec. 3-7, Practice A

Measurement of fastener coating thickness - dimensional change method

FA/495 MIL-STD-1312-12
FA/874 NASM 1312-12

Measurement of fastener coating thickness - microscopical method

FA/160 ASTM B487
FA/163 MIL-STD-1312-12
FA/873 NASM 1312-12

Microhardness of fasteners

FA/189 ASTM E384

Prevailing torque

FA/630 MIL-N-25027
FA/899 BPS-N-70
FA/902 NAS 3350

Proof load of full-size externally threaded fasteners

FA/691 MIL-STD-1312-8
FB/1037 NASM 1312-8
FB/1041 D2-2860

Proof load of internally threaded fasteners (nuts)

FB/1039 MIL-STD-1312-8
FB/1040 NASM 1312-8
FB/1042 D2-2860

Push out test of floating plate nuts, gang channel nuts, and anchor nuts

FA/116 MIL-N-25027
FA/891 BPS-N-70

Recess strength test in both the installation and removal directions

FA/886 NASM 1312-25

Reusability test of self-locking internally threaded fasteners

FA/124 MIL-N-25027
FA/125 NAS 3350
FA/774 BPS-N-70

Rockwell hardness of fasteners

FA/196 ASTM A370 Sec. 18
FA/197 ASTM E18
FA/201 MIL-STD-1312-6
FA/878 NASM 1312-6
FB/1072 BAC 5650

Rockwell superficial hardness of fasteners

FA/205 ASTM E18
FA/206 ASTM A370 Sec. 18
FA/209 MIL-STD-1312-6
FB/1035 NASM 1312-6

Salt spray testing of fasteners

FA/168 MIL-STD-1312-1
FB/1032 NASM 1312-1

Tension testing of machined specimens from externally threaded fasteners

FA/475 ASTM E8
FB/1043 ASTM B557

Test for embrittlement of metallic coated externally threaded fasteners

FA/525 MIL-STD-1312-5
FB/1034 NASM 1312-5

Torque-out test

FA/133 MIL-N-25027
FB/1031 BPS-N-70

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/671 MIL-STD-1312-6
FB/1036 NASM 1312-6

Wedge tensile strength of full-size threaded fasteners

FA/295 MIL-STD-1312-8
FB/1044 NASM 1312-8
FB/1069 D2-2860

Wrench torque test of externally wrenching nuts of spline and hexagon and double hexagon (1

FA/141 MIL-N-25027
FA/142 NAS 3350
FA/893 BPS-N-70

Yield strength of full-size externally threaded fasteners

FA/303 MIL-STD-1312-8
FB/1045 NASM 1312-8
FB/1068 D2-2860

Metallography

Decarburization and case depth measurement in fasteners

FA/323 ASTM E1077
FA/904 BPS-N-70
FB/1046 BPS-F-76
FB/1047 BPS-F-67
FB/1048 NAS 498
FB/1073 BPS-F-46

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

Microscopic examination of fasteners by etching

FA/512 ASTM E407

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M
FA/859 ASTM A574
FB/1049 NAS 4002
FB/1050 NAS 4003
FB/1051 NAS 4004
FB/1052 BPS-F-67
FB/1053 BPS-F-69
FB/1054 BPS-F-68
FB/1055 BPS-F-76
FB/1056 NAS 498
FB/1057 FF-S-86

Surface discontinuities of internally threaded fasteners

FA/907 BPS-N-70

Nondestructive Inspection

Liquid penetrant inspection of fasteners

FA/527 ASTM E1417
FB/1059 MIL-I-25135
FB/1074 BAC 5423

Magnetic particle inspection of fasteners

FA/485 ASTM E1444
FB/1075 BAC 5424

NVLAP LAB CODE 200293-0

EMSL Analytical, Inc.

10768 Baltimore Avenue
Beltsville, MD 20705
Contact: Mr. Joseph Centifonti
Phone: 301-937-5700
Fax: 301-937-5701

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200294-0

Micron Environmental Labs

292 E. Foothill Blvd., Suite B
Arcadia, CA 91006
Contact: Mr. Daniel Gamez
Phone: 626-357-8627
Fax: 626-256-9017
E-Mail: micronlabs@integrityonline7.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200296-0

Okawa Laboratory

6357-1 Oba, Omiya-cho
Naka-gun, Ibaraki-ken 319-21
JAPAN
Contact: Mr. Katsuyoshi Okawa
Phone: 81-2955-3-0111
Fax: 81-2955-3-5290

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/607 JIS B1071

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/574 JIS B1051 Sec. 4.2.2

Measurement of fastener coating thickness - magnetic methods

FA/596 JIS H8501

Proof load of full-size externally threaded fasteners

FA/573 JIS B1051 Sec. 4.2.4

Rockwell hardness of fasteners

FA/572 JIS Z2245

FA/616 JIS B1051 Sec. 4.3

FA/707 JIS B1051 Sec. 4.2.5

Salt spray testing of fasteners

FA/569 JIS Z2371

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/571 JIS Z2244

FA/643 JIS B1051 Sec. 4.2.5

Metallography

Decarburization and case depth measurement in fasteners

FA/645 JIS B1051

Surface discontinuities of externally threaded fasteners

FA/646 JIS B1041

NVLAP LAB CODE 200297-0

Intertek Testing Services NA Inc.

27611 La Paz Road, Suite C
Laguna Niguel, CA 92677
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Phone: 949-448-4100
Fax: 949-448-4111
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FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices
12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz
12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment
12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.
12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200298-0

SPS Technologies Aerospace Product Division

2701 S. Harbor Boulevard
Santa Ana, CA 92702-1259
Contact: Mr. Rob Dewitz
Phone: 714-850-3664
Fax: 714-850-3605
E-Mail: rdewitz@spstech.com

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - bearing surface squareness

FA/633 MIL-N-25027

*Dimensions of fasteners - hexagon and double hexagon
(12 point) and spline sockets*

FA/411 ANSI/ASME B18.3
FA/540 MIL-STD-33787
FA/634 MIL-STD-21132
FA/635 SAE AS 870

Dimensions of fasteners - straightness

FA/423 ANSI/ASME B18.2.1

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M
FA/380 FED-STD-H28/20
FA/628 MIL-S-8879

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M
FA/382 FED-STD-H28/20
FA/384 MIL-S-8879

External thread parameters - system 23

FA/385 ANSI/ASME B1.3M
FA/386 FED-STD-H28/20
FA/388 MIL-S-8879

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M
FA/392 FED-STD-H28/20
FA/629 MIL-S-8879

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M
FA/394 FED-STD-H28/20
FA/537 SAE AS 8879

Surface texture

FA/439 ANSI/ASME B46.1

Mechanical and Physical Testing and Inspection

Adhesion of metallic coatings on fasteners

FA/143 ASTM B571

Axial tensile strength of full-size threaded fasteners

FA/265 ASTM A370 Sec. A3.2.1.4
FA/266 ASTM F606 Sec. 3.4.1-3.4.3
FA/271 MIL-STD-1312-8

Double shear of externally threaded fasteners

FA/257 MIL-STD-1312-13

Hardness preparation

FA/482 ASTM F606

Humidity testing of fasteners

FA/169 MIL-STD-753 Test Method 101
FA/473 MIL-STD-1312-3
FA/923 ASTM A967

*Hydrogen embrittlement (stress durability) of externally
threaded fasteners*

FA/176 MIL-STD-1312-5
FA/924 ASTM F606

*Hydrogen embrittlement (stress durability) of internally
threaded fasteners*

FA/178 MIL-STD-1312-14

Magnetic permeability

FA/214 ASTM A342 Test Method 3

*Measurement of fastener coating thickness - X-ray
methods*

FA/556 ASTM B568

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Measurement of fastener coating thickness - magnetic methods**

FA/153 ASTM B499
FA/159 MIL-STD-1312-12

Measurement of fastener coating thickness - microscopical method

FA/160 ASTM B487
FA/163 MIL-STD-1312-12

Microhardness of fasteners

FA/189 ASTM E384
FA/193 MIL-STD-1312-6

Permanent set test of self-locking nuts

FA/109 MIL-N-25027

Prevailing torque

FA/630 MIL-N-25027

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

Proof load of internally threaded fasteners (nuts)

FA/236 ASTM F606 Sec. 4.2

Push out test of floating plate nuts, gang channel nuts, and anchor nuts

FA/926 SPS 316

Recess strength test in both the installation and removal directions

FA/476 MIL-STD-1312-25

Reusability test of self-locking internally threaded fasteners

FA/124 MIL-N-25027
FA/522 MIL-STD-1312-31

Rockwell hardness of fasteners

FA/197 ASTM E18
FA/201 MIL-STD-1312-6

Rockwell superficial hardness of fasteners

FA/205 ASTM E18
FA/209 MIL-STD-1312-6

Room temperature of three cycles test of floating plate nuts, gang channel nuts and anchor

FA/927 SPS 380

Salt spray testing of fasteners

FA/166 ASTM B117
FA/168 MIL-STD-1312-1

Single shear of externally threaded fasteners

FA/255 ASTM F606
FA/256 MIL-STD-1312-20
FA/925 ASTM F606M

Stress rupture of fasteners

FA/260 ASTM E139
FA/261 ASTM E292
FA/262 MIL-STD-1312-10

Tension testing of machined specimens from externally threaded fasteners

FA/278 ASTM A370
FA/279 ASTM F606 Sec. 3.6
FA/475 ASTM E8

Test for embrittlement of metallic coated externally threaded fasteners

FA/179 ASTM F606 Sec. 7
FA/525 MIL-STD-1312-5

Torque-out test

FA/133 MIL-N-25027
FA/523 MIL-STD-1312-31

Torque-tension of full-size threaded fasteners

FA/307 MIL-STD-1312-15

Vibration of full-size threaded fasteners

FA/311 MIL-STD-1312-7
FA/631 MIL-N-25027

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/492 ASTM E92

Wedge tensile strength of full-size threaded fasteners

FA/289 ASTM A370
FA/290 ASTM F606 Sec. 3.5

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4
FA/299 ASTM A370 Sec. A3.2.1.3(a)

Metallography**Decarburization and case depth measurement in fasteners**

FA/323 ASTM E1077

Determination of grain size of fasteners

FA/638 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

Microscopic examination of fasteners by etching

FA/512 ASTM E407

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

Surface discontinuities of internally threaded fasteners

FA/865 ASTM F812/F812M

Nondestructive Inspection**Liquid penetrant inspection of fasteners**

FA/371 MIL-STD-6866
FA/527 ASTM E1417

Magnetic particle inspection of fasteners

FA/485 ASTM E1444

NVLAP LAB CODE 200299-0**Okai Iron Works Co., Ltd.**

3-12-41 Tsuruhara
Izumisano Osaka 598-0071
JAPAN
Contact: Mr. Yasuhiro Okai
Phone: 0724-63-6101
Fax: 0724-63-6228
E-Mail: okaikk@osk3.3web.ne.jp

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection**Dimensions of ISO grade A and B fasteners**

FA/408 ISO 4759-1
FA/930 ISO 4759-3

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued***Dimensions of ISO grade C fasteners***

FA/410 ISO 4759-1

FA/931 ISO 4759-3

Dimensions of fasteners - bearing surface squareness

FA/936 ISO 4759-1

Dimensions of fasteners - flange screw heads and flange nuts

FA/933 ISO 4161

FA/934 ISO 4162

Dimensions of fasteners - hexagon and double hexagon (12 point) and spline sockets

FA/411 ANSI/ASME B18.3

FA/932 ISO 4759-1

Dimensions of fasteners - straightness

FA/935 ISO 4759-1

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

Surface texture

FA/937 ISO 4288

Mechanical and Physical Testing and Inspection***Adhesion of metallic coatings on fasteners***

FA/144 ISO 2819

Axial tensile strength of full-size threaded fasteners

FA/270 ISO 898-1 Sec. 8.2

Measurement of fastener coating thickness - magnetic methods

FA/153 ASTM B499

Measurement of fastener coating thickness - microscopical method

FA/162 ISO 1463

Microhardness of fasteners

FA/191 ISO 6507-2

FA/192 ISO 6507-3

Proof load of full-size externally threaded fasteners

FA/228 ISO 898-1 Sec. 8.4

Proof load of internally threaded fasteners (nuts)

FA/239 ISO 898-2 Sec. 8.1

Rockwell hardness of fasteners

FA/200 ISO 6508

Tension testing of machined specimens from externally threaded fasteners

FA/282 ISO 898-1

Total extension at fracture of externally threaded fasteners

FA/287 ISO 3506

Wedge tensile strength of full-size threaded fasteners

FA/294 ISO 898-1 Sec. 8.5

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4

Metallography***Decarburization and case depth measurement in fasteners***

FA/324 ISO 898-1

FA/928 ISO 2639

Macroscopic examination of fasteners by etching

FA/929 ISO 4969

Surface discontinuities of externally threaded fasteners

FA/359 ISO 6157-1

FA/360 ISO 6157-3

Surface discontinuities of internally threaded fasteners

FA/727 ISO 6157-2

NVLAP LAB CODE 200300-0**Akzo Kashima Ltd., Kawasaki Technical Center**

5-23-13 Minamikase, Saiwai-ku

Kawasaki 211-0955

JAPAN

Contact: Mr. Shuichi Kobayashi

Phone: 81-479-40-1097

Fax: 81-479-46-1788

E-Mail: shuichi.kobayashi@nifty.ne.jp

URL: <http://www.akzoemc.co.jp>**FCC Test Methods**

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA***Technical Standards***

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

12/T01 Terminal Equipment Network Protection Standards, FCC Method - 47 CFR Part 68 - Analog and Digital

12/T01a 68.302 (Par. c,d,e,f) Environmental simulation; 68.304 Leakage current limit.; 68.306 Hazardous voltage limit.; 68.308 Signal power limit.; 68.310 Longitudinal balance limit.; 68.312 On-hook impedance limit.; 68.314 Billing protection

12/T01b 68.316 Hearing Aid Compatibility: technical standards

12/T01c 68.302 Environmental simulation (Par. a,b)

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200303-0

A.E.S.L. Environmental Laboratory

800 North Mary Street
Tempe, AZ 85281-1945
Contact: Mr. Kenneth W. Hokanson
Phone: 480-966-7171
Fax: 480-394-0188

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 200304-0

Marconi Electronic Systems Environmental and EMC Test Centre

Airport Works
Rochester
Kent ME1 2XX
UNITED KINGDOM
Contact: Mr. Frank Ewen
Phone: 01-634-816794
Fax: 01-634-816647
E-Mail: frank.ewen@gecm.com

MIL-STD-462 Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Conducted Emissions:

12/A06	MIL-STD-462 Method CE03
12/A12	MIL-STD-462 Method CE07

Conducted Susceptibility:

12/B01	MIL-STD-462 Method CS01
12/B02	MIL-STD-462 Method CS02
12/B05	MIL-STD-462 Method CS06

Radiated Emissions:

12/D02	MIL-STD-462 Method RE02
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Radiated Susceptibility:

12/E02	MIL-STD-462 Method RS02
12/E03	MIL-STD-462 Method RS03 (Consult laboratory for field strengths available)
12/E04	MIL-STD-462 Method RS03 employing RADHAZ procedures for high level testing (Consult laboratory for field strengths available)

NVLAP LAB CODE 200305-0

GE Owensboro Test Laboratory

3301 Old Hartford Road
Owensboro, KY 42718
Contact: Mr. Robert Riley
Phone: 502-686-1212
Fax: 502-686-1240

Efficiency of Electric Motors

Accreditation Valid Through: March 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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24/M01	IEEE 112, Method B
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NVLAP LAB CODE 200306-0

Zacta Technology Corporation Yonezawa Testing Center

4149-7 Hachimanpara 5-chome
Yonezawa-shi Yamagata 992-1128
JAPAN
Contact: Mr. Shin-ichi Abe
Phone: 81-238-28-2880
Fax: 81-238-28-2888
E-Mail: shinichi_abe@zacta.co.jp

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Australian Standards referred to by clauses in ACA Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
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NVLAP LAB CODE 200307-0

Rocknel Fastener Inc.

5309 11th Street
Rockford, IL 61125-0087
Contact: Mr. Larry White
Phone: 815-873-4064
Fax: 815-873-4011

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - flange screw heads and flange nuts

FA/690 JIS B1071

Dimensions of fasteners - straightness

FA/648 JIS B1071

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/404 ANSI/ASME B18.18.2M

FA/607 JIS B1071

External thread parameters - ISO

FA/624 JIS B0252

FA/884 JIS B0251

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection

Adhesion of metallic coatings on fasteners

FA/143 ASTM B571

FA/595 JIS H8504

Axial tensile strength of full-size threaded fasteners

FA/267 ASTM F606M Sec. 3.4.1-3.4.3

FA/270 ISO 898-1 Sec. 8.2

FA/574 JIS B1051 Sec. 4.2.2

Hardness preparation

FA/464 ASTM F606M

Measurement of fastener coating thickness - eddy-current method

FA/618 JIS H8501

Microhardness of fasteners

FA/189 ASTM E384

Proof load of full-size externally threaded fasteners

FA/228 ISO 898-1 Sec. 8.4

FA/467 ASTM F606M Sec. 3.2.1-3.2.3

FA/573 JIS B1051 Sec. 4.2.4

Rockwell hardness of fasteners

FA/572 JIS Z2245

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

Total extension at fracture of externally threaded fasteners

FA/286 ASTM F606M Sec. 3.7

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/571 JIS Z2244

Wedge tensile strength of full-size threaded fasteners

FA/291 ASTM F606M Sec. 3.5

FA/294 ISO 898-1 Sec. 8.5

FA/575 JIS B1051 Sec. 4.2.3

Yield strength of full-size externally threaded fasteners

FA/300 ASTM F606M Sec. 3.2.4

FA/686 JIS B1051 Sec. 4.2.2

FA/885 ISO 6892

Metallography

Decarburization and case depth measurement in fasteners

FA/324 ISO 898-1

Surface discontinuities of externally threaded fasteners

FA/359 ISO 6157-1

NVLAP LAB CODE 200308-0

SNB Laboratory

49 Abbott Street

P.O. Box 68

Cumberland, RI 02864-0968

Contact: Mr. James Faria

Phone: 401-722-6700

Fax: 401-726-4960

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - bearing surface squareness

FA/745 ANSI B18.2.1

Dimensions of fasteners - straightness

FA/423 ANSI/ASME B18.2.1

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/486 MIL-STD-120 (W/ Notice dtd 9 SEP 63)

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

FA/940 ANSI/ASME B1.2

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

FA/941 ANSI/ASME B1.2

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

FA/942 ANSI/ASME B1.2

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M

FA/943 ANSI/ASME B1.2

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/265 ASTM A370 Sec. A3.2.1.4

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/273 SAE J429

Cone proof load of internally threaded fasteners (nuts)

FA/220 ASTM F606 Sec. 4.3

Magnetic permeability

FA/214 ASTM A342 Test Method 3

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

FA/229 SAE J429 Sec. 5.3

Proof load of internally threaded fasteners (nuts)

FA/236 ASTM F606 Sec. 4.2

Rockwell hardness of fasteners

FA/197 ASTM E18

Tension testing of machined specimens from externally threaded fasteners

FA/278 ASTM A370

FA/279 ASTM F606 Sec. 3.6

Wedge tensile strength of full-size threaded fasteners

FA/289 ASTM A370

FA/290 ASTM F606 Sec. 3.5

Yield strength of full-size externally threaded fasteners

FA/298 ASTM F606 Sec. 3.2.4

NVLAP LAB CODE 200309-0

TDK Corporation's 10m Anechoic Chamber

2-15-7 Higashi-Owada

Ichikawa-shi, Chiba-ken 272-8558

JAPAN

Contact: Mr. Akira Bandoh

Phone: 011-81-47-378-9190

Fax: 011-81-47-378-9780

E-Mail: aban@mb1.tdk.co.jp

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference

(CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200312-0

Sony Electronics Inc. Product Quality Division

EMC Group

16450 West Bernardo Drive, Building 8

San Diego, CA 92127-1804

Contact: Mr. Dave Traver

Phone: 619-673-2601

Fax: 619-674-5967

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200313-0

Eastman Kodak Co.-Regulatory Compliance Center-EMC Facility

901 Elmgrove Road

Rochester, NY 14653-5513

Contact: Ms. Gina T. Wyffels

Phone: 716-726-3200

Fax: 716-726-4297

E-Mail: Gwyffels@kodak.com

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

Equipment

NVLAP LAB CODE 200316-0**ASC geosciences,inc.**

3055 Drane Field Road

Lakeland, FL 33811-1332

Contact: Mr. Anu Saxena, P.E.

Phone: 941-644-8300

Fax: 941-644-8203

E-Mail: anu@ascworld.net

URL: http://www.ascworld.net

Construction Materials Testing

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Aggregates

02/A03 ASTM C29

02/A07 ASTM C117

02/A09 ASTM C127

02/A12 ASTM C136

Concrete

02/A01 ASTM C39

02/A02 ASTM C617

02/A40 ASTM C78

02/A43 ASTM C1064

02/A45 ASTM C42

02/G01 ASTM C31/C172/C143/C138/C231

02/G02 ASTM C173

Road and Paving Materials

02/M07 ASTM D546

02/M08 ASTM D979

02/M19 ASTM D2172

02/M24 ASTM D2041

Soil and Rock

02/L04 ASTM D698

02/L06 ASTM D1140

02/L07 ASTM D1556

02/L08 ASTM D1557

02/L12 ASTM D2168

02/L20 ASTM D4318

02/L23 ASTM D2922

02/L25 ASTM D3017

Standard Practices

02/M26 ASTM D3666

NVLAP LAB CODE 200317-0**Raytheon Technical Services Co. EMI Laboratory**

6125 E. 21st Street, M/S 60

Indianapolis, IN 46219-2058

Contact: Mr. Keith Hines

Phone: 317-306-7484

Fax: 317-306-3739

MIL-STD-462 Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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Conducted Emissions:

12/A06 MIL-STD-462 Method CE03

12/A13 MIL-STD-462 Version D Method CE101

12/A14 MIL-STD-462 Version D Method CE102

12/A15 MIL-STD-462 Version D Method CE106

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01

12/B02 MIL-STD-462 Method CS02

12/B05 MIL-STD-462 Method CS06

12/B12 MIL-STD-462 Version D Method CS101

12/B13 MIL-STD-462 Version D Method CS103

12/B14 MIL-STD-462 Version D Method CS104

12/B15 MIL-STD-462 Version D Method CS105

12/B16 MIL-STD-462 Version D Method CS109

12/B17 MIL-STD-462 Version D Method CS114

12/B18 MIL-STD-462 Version D Method CS115

12/B19 MIL-STD-462 Version D Method CS116

Radiated Emissions:

12/D02 MIL-STD-462 Method RE02

12/D04 MIL-STD-462 Version D Method RE101

12/D05 MIL-STD-462 Version D Method RE102

Radiated Susceptibility:

12/E02 MIL-STD-462 Method RS02

12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)

12/E08 MIL-STD-462 Version D Method RS101

12/E09 MIL-STD-462 Version D Method RS103

NVLAP LAB CODE 200318-0**Motorola PPG Compliance Laboratory**

1500 Gateway Boulevard, M/S 75

Boynton Beach, FL 33426

Contact: Mr. Mac Elliott, III

Phone: 561-739-3792

Fax: 561-739-2341

E-Mail: FME001@email.mot.com

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Federal Communications Commission (FCC) Methods12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01b Radiated Emissions

NVLAP LAB CODE 200319-0**TDK Corporation's Chikumagawa Open Site**

543 Ota

Saku-shi, Nagano-ken 389-0209

JAPAN

Contact: Mr. Akira Bandoh

Phone: 011-81-47-378-9190

Fax: 011-81-47-378-9780

E-Mail: aban@mb1.tdk.co.jp

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

NVLAP LAB CODE 200320-0

Modern Plating Corporation

P.O. Box 838, South Hancock Avenue

Freeport, IL 61032-0838

Contact: Mr. Daniel James Mauer

Phone: 815-235-3111

Fax: 815-235-4571

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Chemical Analysis

Solution chemical analysis

FA/969 MPC AA Work Instructions

Dimensional Inspection

*Dimensions of general purpose fasteners and
high-volume machine assembly fasteners*

FA/404 ANSI/ASME B18.18.2M

*Dimensions of special purpose fasteners and fasteners for
highly specialized engineered ap*

FA/405 ANSI/ASME B18.18.3M

FA/406 ANSI/ASME B18.18.4M

Mechanical and Physical Testing and Inspection

Adhesion of metallic coatings on fasteners

FA/143 ASTM B571

*Measurement of fastener coating thickness - X-ray
methods*

FA/556 ASTM B568

*Measurement of fastener coating thickness - eddy-current
method*

FA/148 ASTM B244

*Measurement of fastener coating thickness - magnetic
methods*

FA/153 ASTM B499

*Measurement of fastener coating thickness - weight of
coating*

FA/970 MPC Coating Weight Work Instructions

Salt spray testing of fasteners

FA/166 ASTM B117

NVLAP LAB CODE 200321-0

Binder Metal Products, Inc.

14909 South Broadway

Gardena, CA 90248

Contact: Mr. Bill Weber

Phone: 213-321-4835

Fax: 310-532-2936

E-Mail: billw@bindermetal.com

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - flatness

FA/975 ASME Y14.5M

FA/976 Binder QAI 0007

Mechanical and Physical Testing and Inspection

Hardness preparation

FA/482 ASTM F606

*Measurement of fastener coating thickness - eddy-current
method*

FA/977 Binder QAI 0005

Rockwell hardness of fasteners

FA/197 ASTM E18

FA/978 Binder QAI 0006

NVLAP LAB CODE 200322-0

Nowicki & Associates, Inc.

33516 9th Avenue South Bldg. 6

Federal Way, WA 98003-6322

Contact: Mr. Michael Quoc Lam

Phone: 253-927-5233

Fax: 253-924-0323

E-Mail: RENOWICKI@AOL.COM

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 200323-0

ALAC

522 East 20th Street, Suite 6E
New York, NY 10009
Contact: Mr. Aleksandr Knobel
Phone: 646-654-1473
Fax: 646-654-1476

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200324-0

Clark Seif Clark, Inc.

21732 Devonshire Street, 2nd Floor
Chatsworth, CA 91311
Contact: Mr. Christian Goerrissen
Phone: 818-727-2553
Fax: 818-727-2556
E-Mail: cgarrison@dslnetworks.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200326-0

Hadd-Co Inspection Lab

2420 Amsler Street
Torrance, CA 90505-5302
Contact: Mr. George Haddad
Phone: 310-325-7620
Fax: 310-325-9655

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Nondestructive Inspection

Liquid penetrant inspection of fasteners

FA/366 AMS 2645
FA/370 MIL-STD-271
FA/371 MIL-STD-6866
FA/527 ASTM E1417
FA/987 ASTM E1208
FA/988 ASTM E1209
FA/989 MIL-I-6866

Magnetic particle inspection of fasteners

FA/373 AMS 2640
FA/374 ASTM E709
FA/376 MIL-STD-271
FA/377 MIL-STD-1949
FA/485 ASTM E1444
FA/990 MIL-I-6868

NVLAP LAB CODE 200327-0

Saturn Fasteners, Inc.

425 South Varney Street
Burbank, CA 91502
Contact: Mr. Robert P. Whitley
Phone: 818-846-7145
Fax: 818-846-7306

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - hexagon and double hexagon (12 point) and spline sockets

FA/972 NAS 4002
FA/973 NAS 624-644

Dimensions of fasteners - straightness

FA/974 NAS 4002

External thread parameters - SAE fastener with MJ metric screw threads

FA/693 FED-STD-H28/20

External thread parameters - system 21

FA/380 FED-STD-H28/20

External thread parameters - system 22

FA/382 FED-STD-H28/20

External thread parameters - system 23

FA/386 FED-STD-H28/20

Surface texture

FA/439 ANSI/ASME B46.1

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/271 MIL-STD-1312-8

Bend test of full size eyebolts

FA/971 MIL-B-6812 Section 4.5.4

Double shear of externally threaded fasteners

FA/257 MIL-STD-1312-13

Fatigue of full-size threaded fasteners

FA/183 MIL-STD-1312-11

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/176 MIL-STD-1312-5

Magnetic permeability

FA/214 ASTM A342 Test Method 3

Measurement of fastener coating thickness - dimensional change method

FA/495 MIL-STD-1312-12

Measurement of fastener coating thickness - eddy-current method

FA/152 MIL-STD-1312-12

Microhardness of fasteners

FA/189 ASTM E384

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued***Recess strength test in both the installation and removal directions***

FA/476 MIL-STD-1312-25

Rockwell hardness of fasteners

FA/201 MIL-STD-1312-6

Rockwell superficial hardness of fasteners

FA/209 MIL-STD-1312-6

Tension testing of machined specimens from externally threaded fasteners

FA/475 ASTM E8

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

Metallography***Decarburization and case depth measurement in fasteners***

FA/483 ASTM A574 Sec. 12

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/511 ASTM E340

Microscopic examination of fasteners by etching

FA/341 ASTM E1077

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

NVLAP LAB CODE 200328-0

Prospect Testing Labs, Inc.

1245 Forest Avenue

Des Plaines, IL 60018

Contact: Mr. Seung W. Lyu

Phone: 847-827-4766

Fax: 847-299-6222

Fasteners & Metals

Accreditation Valid Through: March 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Chemical Analysis***Optical emission spectrochemical analysis***

FA/457 ASTM E415

FA/459 ASTM E1086

FA/460 ASTM E1251

Mechanical and Physical Testing and Inspection***Axial tensile strength of full-size threaded fasteners***

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/273 SAE J429

FA/530 ASTM E8

FA/799 NASM 1312-8

Brinell hardness of fasteners

FA/186 ASTM E10

Hydrogen embrittlement (stress durability) of externally threaded fasteners

FA/875 NASM 1312-5

FA/924 ASTM F606

FA/967 GM 6010M

Hydrogen embrittlement (stress durability) of internally threaded fasteners

FA/968 GM 6010M

Intergranular corrosion susceptibility in austenitic stainless steel fasteners - nitric acid

FA/173 ASTM A262 Sec. 15-21, Practice C

Intergranular corrosion susceptibility of austenitic stainless steel fasteners - oxalic acid

FA/174 ASTM A262 Sec. 3-7, Practice A

Measurement of fastener coating thickness - microscopical method

FA/160 ASTM B487

FA/873 NASM 1312-12

Measurement of fastener coating thickness - weight of coating

FA/164 ASTM A90

Microhardness of fasteners

FA/189 ASTM E384

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

FA/229 SAE J429

Proof load of internally threaded fasteners (nuts)

FA/236 ASTM F606 Sec. 4.2

FA/241 SAE J995 Sec. 5.1

Rockwell hardness of fasteners

FA/197 ASTM E18

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

Tension testing of machined specimens from externally threaded fasteners

FA/475 ASTM E8

Torque-tension of full-size threaded fasteners

FA/882 NASM 1312-15

Torsional strength test of thread rolling and self-drilling tapping screws

FA/252 ASTM F738M

FA/254 SAE J81

FA/751 SAE J933

FA/966 ASTM F880M

Wedge tensile strength of full-size threaded fasteners

FA/290 ASTM F606 Sec. 3.5

FA/468 SAE J429

Metallography***Decarburization and case depth measurement in fasteners***

FA/323 ASTM E1077

FA/328 SAE J121

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FA/551 ASTM E3

Microscopic examination of fasteners by etching

FA/552 ASTM E3

Surface discontinuities of externally threaded fasteners

FA/361 SAE J123

FA/362 SAE J1061

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Surface discontinuities of internally threaded fasteners**

FA/365 SAE J122

NVLAP LAB CODE 200329-0**FabriSteel Products Inc.**

22100 Trolley Industrial Drive

Taylor, MI 48180

Contact: Ms. Michelle Stawowy

Phone: 313-299-1178

Fax: 313-299-1190

E-Mail: mstawowy@fabristeel.com

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
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Dimensional Inspection**Dimensions of general purpose fasteners and****high-volume machine assembly fasteners**

FA/403 ANSI/ASME B18.18.1M

FA/404 ANSI/ASME B18.18.2M

External thread parameters - SAE fastener with MJ**metric screw threads**

FA/662 ISO 1502

External thread parameters - system 21

FA/379 ANSI/ASME B1.3M

External thread parameters - system 22

FA/381 ANSI/ASME B1.3M

Internal thread parameters - ISO

FA/402 ISO 1502

Internal thread parameters - system 21

FA/391 ANSI/ASME B1.3M

Internal thread parameters - system 22

FA/393 ANSI/ASME B1.3M

Mechanical and Physical Testing and Inspection**Microhardness of fasteners**

FA/189 ASTM E384

Rockwell hardness of fasteners

FA/196 ASTM A370 Sec. 18

FA/197 ASTM E18

FA/200 ISO 6508

FA/202 SAE J417

Rockwell superficial hardness of fasteners

FA/205 ASTM E18

FA/206 ASTM A370 Sec. 18

FA/208 ISO 1024

FA/210 SAE J417

Metallography**Decarburization and case depth measurement in fasteners**

FA/323 ASTM E1077

FA/324 ISO 898-1

FA/325 ISO 898-5

FA/328 SAE J121

FA/329 SAE J419

FA/758 SAE J121M

Macroscopic examination of fasteners by etching

FA/334 ISO 6157-1

FA/335 ISO 6157-3

FA/336 SAE J123

FA/337 SAE J1061

Microscopic examination of fasteners by etching

FA/341 ASTM E1077

FA/342 ISO 898-1

FA/343 ISO 898-5

FA/344 SAE J121

FA/471 SAE J419

FA/759 SAE J121M

Surface discontinuities of externally threaded fasteners

FA/357 ASTM F788/788M

FA/358 ASTM F788M

FA/359 ISO 6157-1

FA/360 ISO 6157-3

FA/361 SAE J123

FA/362 SAE J1061

Surface discontinuities of internally threaded fasteners

FA/363 ASTM F812

FA/364 ASTM F812M

FA/365 SAE J122

NVLAP LAB CODE 200331-0**HomeTek Technology Inc.**

No. 85-5 Shir Men Rd., Tu Cheng City

P.O. Box: 13-131, Pan-Chiao City

Taipei Shien 236

TAIWAN

Contact: Mr. Grant Huang

Phone: 886-2-22608375

Fax: 886-2-22748013

E-Mail: hometek@ms15.hinet.net

FCC Test Methods

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200333-0

EMSL Analytical, Inc.

175 Clearbrook Road
Cross West Chester Executive Plaza
Elmsford, NY 10523
Contact: Mr. Robert Georgens
Phone: 914-592-4688
Fax: 914-592-6798

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200335-0

Hygeia Laboratories, Inc.

9955 NW 116 Way, Suite 1
Miami, FL 33178
Contact: Mr. Julio Lopez
Phone: 305-882-8200
Fax: 305-882-1200
E-Mail: LOPEZ31@ATC-ENVIRO.COM
URL: <http://www.atc-enviro.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200336-0

Pratt & Whitney Materials Control Laboratory

400 Main Street, Mail Stop 184-25
East Hartford, CT 06108
Contact: Mr. Donald J. Baron
Phone: 860-565-2857
Fax: 860-565-2897
E-Mail: barondj@pweh.com

Fasteners & Metals

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Chemical Analysis

*Combustion analysis for carbon, sulfur, oxygen,
nitrogen, and hydrogen*

FB/1024 P&W M-165

FB/1025 P&W M-166

FB/1026 P&W M-175

Energy dispersive X-ray analysis

FB/1030 P&W N-51

Optical emission spectrochemical analysis

FB/1027 P&W M-186

FB/1028 P&W N-11

X-ray fluorescence (XRF) spectrochemical analysis

FB/1029 P&W N-60

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FB/1018 P&W K-32

Brinell hardness of fasteners

FB/1009 P&W E-O Supp C

Charpy impact (v-notch) testing

FB/1014 P&W K-162

Elevated temperature testing capability

FB/1135 P&W K-33

Fatigue of full-size threaded fasteners

FB/1008 P&W K-317

Flareability test of clinch and shank nuts

FB/1006 P&W K-309

*Measurement of fastener coating thickness -
microscopical method*

FB/1136 P&W E-23

Microhardness of fasteners

FB/1010 P&W E-O Supp C

Proof load of full-size externally threaded fasteners

FB/1015 P&W K-32

Proof load of internally threaded fasteners (nuts)

FB/1016 P&W K-32

Rockwell hardness of fasteners

FB/1011 P&W E-O Supp C

Rockwell superficial hardness of fasteners

FB/1012 P&W E-O Supp C

Salt spray testing of fasteners

FB/1007 P&W P-23

Stress rupture of fasteners

FB/1017 P&W E-1107

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FB/1013 P&W E-O Supp C

Metallography

Decarburization and case depth measurement in fasteners

FB/1019 P&W E-23

Determination of grain size of fasteners

FA/331 ASTM E112

Macroscopic examination of fasteners by etching

FB/1020 P&W K-76

Microscopic examination of fasteners by etching

FB/1021 P&W E-23

Surface discontinuities of externally threaded fasteners

FB/1022 P&W E-23

FB/1023 P&W E-242

NVLAP LAB CODE 200337-0

IBM Charlotte EMC Facility

8501 IBM Drive, MG 22-202

Charlotte, NC 28262-8563

Contact: Mr. Mike Z. Hardy

Phone: 704-594-1533

Fax: 704-594-7376

E-Mail: mhardy@us.ibm.com

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

NVLAP LAB CODE 200340-0

Diviersified T.E.S.T. Technologies, Inc.

556 Route 222, P.O. Box 8

Groton, NY 13073

Contact: Mr. Thomas P. Sims

Phone: 607-898-4218

Fax: 607-898-4830

E-Mail: tom@dttlab.com

URL: http://www.dttlal.com

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200341-0

United Steel and Fasteners Inc.

1500 Industrial Drive

Itasca, IL 60143

Contact: Mr. Antonio Zaccari

Phone: 630-250-0900

Fax: 630-250-0220

E-Mail: us_f@msn.com

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of fasteners - bearing surface squareness

FA/745 ANSI B18.2.1

Dimensions of fasteners - straightness

FA/423 ANSI/ASME B18.2.1

Dimensions of general purpose fasteners and high-volume machine assembly fasteners

FA/494 ANSI B18.2.1

Mechanical and Physical Testing and Inspection

Axial tensile strength of full-size threaded fasteners

FA/266 ASTM F606 Sec. 3.4.1-3.4.3

FA/273 SAE J429

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**Hardness preparation**

FA/482 ASTM F606

Proof load of full-size externally threaded fasteners

FA/226 ASTM F606 Sec. 3.2.1-3.2.3

FA/229 SAE J429

Rockwell hardness of fasteners

FA/202 SAE J417

Tension testing of machined specimens from externally threaded fasteners

FA/279 ASTM F606 Sec. 3.6

FA/283 SAE J429

NVLAP LAB CODE 200342-0**Genicom Corporation**One Solutions Way
Waynesboro, VA 22980-1999

Contact: Mr. J. J. Tolbert

Phone: 540-949-1105

Fax: 540-949-1989

E-Mail: jtolbert@genicom.com

URL: <http://www.genicom.com>**FCC Test Methods**

Accreditation Valid Through: June 30, 2000

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Code	Designation
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Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference**(CISPR) Methods**12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment**NVLAP LAB CODE 200345-0****Ricoh Company LTD. Ohmori Acoustics Test Site**

3-6, 1 Chome, Nakamagome, Ohta-ku

Tokyo 143-8555

JAPAN

Contact: Mr. Yuji Noritake

Phone: 03-3777-8183

Fax: 03-3777-0811

E-Mail: yuji.noritake@nts.ricoh.co.jp**Acoustical Testing Services**

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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08/P24 ANSI S12.10 (ISO 7779)

NVLAP LAB CODE 200346-0**SCILAB California, Inc.**

24416 South Main Street, Suite 308

Carson, CA 90745

Contact: Mr. Roobik Yaghoubi

Phone: 310-834-4868

Fax: 310-834-4772

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200347-0**Quietek Corporation**

No. 75-2 Wang-Yeh Velly, Yung-Hsing

Chiung-Lin

Hsin-Chu Country

TAIWAN

Contact: Mr. Gene Chang

Phone: 886-3-5928858

Fax: 886-3-5928859

E-Mail: quietek@ms24.hinet.net**FCC Test Methods**

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference**(CISPR) Methods**12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment**NVLAP LAB CODE 200349-0****Crisp Analytical Laboratory**

2081 Hutton Drive, Suite 309

Carrollton, TX 75006

Contact: Mr. David Bertolacci

Phone: 972-488-1414

Fax: 972-488-8006

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200350-0

White Environmental Consultants, Inc.

1130 N. Nimitz Hwy. #3220
Honolulu, HI 96817
Contact: Mr. Jim Willard
Phone: 808-536-8819
Fax: 808-536-0191
E-Mail: weclabs@gte.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200353-0

Alloy & Stainless Testing

1493 London Bridge Road
Virginia Beach, VA 23456
Contact: Mr. Randy Earles
Phone: 757-427-0111 x111
Fax: 757-427-2658
E-Mail: RAEARLES@AOL.COM

Fasteners & Metals

Accreditation Valid Through: December 31, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
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Dimensional Inspection

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FA/963	ANSI B18.2.1
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External thread parameters - system 21

FA/379	ANSI/ASME B1.3M
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External thread parameters - system 22

FA/381	ANSI/ASME B1.3M
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Internal thread parameters - system 21

FA/391	ANSI/ASME B1.3M
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NVLAP LAB CODE 200358-0

Patriot Environmental Laboratory Services

12832 Valley View Street, Suite 107
Garden Grove, CA 92845
Contact: Mr. James Thornbrugh, II
Phone: 714-899-8900
Fax: 714-899-7098
E-Mail: JThornbrugh@earthlink.net

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200361-0

Architectural Testing Inc.

130 Derry Ct.
York, PA 17402
Contact: Mr. Eric J. Miller
Phone: 717-764-7700
Fax: 717-764-4129
E-Mail: emiller@testati.com
URL: <http://www.testati.com>

Acoustical Testing Services

Accreditation Valid Through: September 30, 2000

NVLAP

<i>Code</i>	<i>Designation</i>
08/P03	ASTM C423
08/P06	ASTM E90
08/P30	ASTM E1408
08/P31	ASTM E336
08/P37	ASTM E966
08/P43	ASTM E1425
08/P44	ISO 354
08/P45	ISO 140, Part 3

NVLAP LAB CODE 200362-0

TEAC Corporation EMC Center

857 Koyata, Iruma-shi
Saitama-ken 358-8510
JAPAN
Contact: Mr. Hirokatsu Nagashima
Phone: 81-42-462-7159
Fax: 81-42-963-7153
E-Mail: hiro@ir.teac.co.jp

FCC Test Methods

Accreditation Valid Through: December 31, 2000

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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**NVLAP LAB CODE 200363-0****Sun Microsystems, Inc. EMC Testing**

901 San Antonio Road
MS UMPK25-101
Palo Alto, CA 94303-4900
Contact: Mr. Hugh Hagel
Phone: 650-786-3215
Fax: 650-786-4316
E-Mail: Hugh.Hagel@sun.com

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA**Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference**(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200364-0**Kyushu Matsushita Electric Test Lab EMC
Center**

441-13 Nagahasu Tateishi-cho
Tosu-shi Saga-ken 841-8585
JAPAN
Contact: Mr. Shigetaka Matsuo
Phone: 81-942-84-8472
Fax: 81-942-84-8470
E-Mail: PAN48908@pios.kme.mei.co.jp

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

**Australian Standards referred to by clauses in ACA
Technical Standards**

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

**International Special Committee on Radio Interference
(CISPR) Methods**

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

NVLAP LAB CODE 200368-0**Sony Minokamo EMC Site**

9-15-22, Hongo-cho Minokamo City
Gifu-Pref. 505-8510
JAPAN
Contact: Mr. Yoshiki Matsuguchi
Phone: 81-574-25-8161
Fax: 81-574-25-9143
E-Mail: matuguti@mk.m.sony.co.jp

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

NVLAP LAB CODE 200369-0

PWC Environmental Laboratory, Pearl Harbor

Code 343
400 Marshall Road
Pearl Harbor, HI 96860
Contact: Ms. Ginger Nakamoto
Phone: 808-474-3704 X317
Fax: 808-471-4534
E-Mail: nakamotogj@pwcpearl.navy.mil

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200371-0

Audix TEchnology (Shanghai) Co., Ltd.

3-4 F., 34 Bldg. 680 Guiping Road
Caohejing, Hi-Tech Park
Shanghai
CHINA
Contact: Mr. Jeremy Geng
Phone: 86-21-649-55500
Fax: 86-21-649-50791
E-Mail: jgeng@ihw.com.cn

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Federal Communications Commission (FCC) Methods

- | | |
|---------|---|
| 12/F01 | FCC Method - 47 CFR Part 15 - Digital Devices |
| 12/F01a | Conducted Emissions, Power Lines, 450 KHz to 30 MHz |
| 12/F01b | Radiated Emissions |

NVLAP LAB CODE 200372-0

AUDIX Technology (Shenzhen) Co., Ltd.

No. 6 Ke Feng Road 52 Block Shenzhen
Science & Industry Park, Nantou
Shenzhen, Guangdong
CHINA
Contact: Mr. Jeff Chen
Phone: 86-755-663-9496
Fax: 86-755-663-2877
E-Mail: acsemc@audix.com or ttemc@tpts1.seed.net.tw

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

- | | |
|--------|-------------|
| 12/T51 | AS/NZS 3548 |
|--------|-------------|

Federal Communications Commission (FCC) Methods

- | | |
|---------|---|
| 12/F01 | FCC Method - 47 CFR Part 15 - Digital Devices |
| 12/F01a | Conducted Emissions, Power Lines, 450 KHz to 30 MHz |

- | | |
|---------|--------------------|
| 12/F01b | Radiated Emissions |
|---------|--------------------|

International Special Committee on Radio Interference (CISPR) Methods

- | | |
|-----------|--|
| 12/CIS22 | IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment |
| 12/CIS22a | IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996. |
| 12/CIS22b | CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment |

NVLAP LAB CODE 200373-0

Fujitsu General EMC Laboratory

1116, Suenaga, Takatsu-ku
Kawasaki 213-8502
JAPAN
Contact: Mr. Hiroyuki Shimanoe
Phone: 81-44-861-7897
Fax: 81-44-861-9890
E-Mail: shimanoe@fujitsugeneral.co.jp
URL: <http://www.fujitsugeneral.co.jp/emc/>

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA Technical Standards

- | | |
|--------|-------------|
| 12/T51 | AS/NZS 3548 |
|--------|-------------|

Federal Communications Commission (FCC) Methods

- | | |
|---------|---|
| 12/F01 | FCC Method - 47 CFR Part 15 - Digital Devices |
| 12/F01a | Conducted Emissions, Power Lines, 450 KHz to 30 MHz |
| 12/F01b | Radiated Emissions |

International Special Committee on Radio Interference (CISPR) Methods

- | | |
|----------|---|
| 12/CIS22 | IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment |
|----------|---|

NVLAP LAB CODE 200374-0

EnviroHealth Technologies, Inc.

3830 Washington Boulevard, Suite 123
St. Louis, MO 63108-3406
Contact: Mr. William J. Lowry
Phone: 314-531-9868
Fax: 314-531-9196
E-Mail: eht@stlnet.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: June 30, 2000

NVLAP LAB CODE 200375-0

EMSL Analytical, Inc.

11931 Industriplex, Suite 100
Baton Rouge, LA 70809
Contact: Mr. Ron Mahoney
Phone: 225-755-1920
Fax: 225-755-1989
E-Mail: batonrouge@emsl.com
URL: http://www.emsl.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200376-0

Advance Data Technology Corporation Hsin Chu EMC Laboratory

No. 81-1, Lu Liao Keng, 9 Ling, Wu Lung
Tsuen, Chiung Lin Hsiang
Hsin Chu Hsien
TAIWAN
Contact: Mr. Harris Lai
Phone: 886-2-26032180
Fax: 886-2-26022943
E-Mail: harris@mail.adt.com.tw

FCC Test Methods

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200378-0

TECO Electric & Machinery Co., Ltd.

11 An Tung Road, Chung Li Ind. District
Taoyuan
TAIWAN
Contact: Mr. Kevin Mong
Phone: 02-256-21111
Fax: 02-252-18341
E-Mail: kevin.mong@teco.com.tw

Efficiency of Electric Motors

Accreditation Valid Through: March 31, 2000

NVLAP

Code Designation

24/M01 IEEE 112, Method B

NVLAP LAB CODE 200382-0

Boeing - St. Louis Electromagnetic Compatibility Laboratory

Mail Code S1065205
P.O. Box 516
St. Louis, MO 63166-0516
Contact: Mr. Randy R. Vollmer
Phone: 314-233-7798
Fax: 314-232-5059
E-Mail: randy.r.vollmer@boeing.com

MIL-STD-462 Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Conducted Emissions:

12/A01 MIL-STD-462 Method CE01

12/A04 MIL-STD-462 Method CE02

12/A06 MIL-STD-462 Method CE03

12/A08 MIL-STD-462 Method CE04

12/A13 MIL-STD-462 Version D Method CE101

12/A14 MIL-STD-462 Version D Method CE102

Conducted Susceptibility:

12/B01	MIL-STD-462 Method CS01
12/B02	MIL-STD-462 Method CS02
12/B05	MIL-STD-462 Method CS06
12/B07	MIL-STD-462 Method CS09
12/B08	MIL-STD-462 Method CS10
12/B09	MIL-STD-462 Method CS11
12/B10	MIL-STD-462 Method CS12
12/B11	MIL-STD-462 Method CS13
12/B12	MIL-STD-462 Version D Method CS101
12/B16	MIL-STD-462 Version D Method CS109
12/B17	MIL-STD-462 Version D Method CS114
12/B18	MIL-STD-462 Version D Method CS115
12/B19	MIL-STD-462 Version D Method CS116

Radiated Emissions:

12/D01	MIL-STD-462 Method RE01
12/D02	MIL-STD-462 Method RE02
12/D04	MIL-STD-462 Version D Method RE101
12/D05	MIL-STD-462 Version D Method RE102

Radiated Susceptibility:

12/E01	MIL-STD-462 Method RS01
12/E02	MIL-STD-462 Method RS02
12/E03	MIL-STD-462 Method RS03 (Consult laboratory for field strengths available)
12/E04	MIL-STD-462 Method RS03 employing RADHAZ procedures for high level testing (Consult laboratory for field strengths available)
12/E07	MIL-STD-462 Method RS06
12/E08	MIL-STD-462 Version D Method RS101
12/E09	MIL-STD-462 Version D Method RS103

NVLAP LAB CODE 200383-0

NCR Corp. San Diego EMC Lab

17095 Via del Campo
San Diego, CA 92127-1711
Contact: Mr. Paul Rostek
Phone: 8585-2860
Fax: 858-485-3788
E-Mail: paul.rostek@sandiegoca.ncr.com

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51	AS/NZS 3548
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology
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equipment

12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
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12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment
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NVLAP LAB CODE 200394-0

Acos Villares SA - Chemical Laboratory

Rodovia Luiz Dumont Villares km 02
Pindamonhangaba SP 12420-000
BRASIL
Contact: Mr. Kiyoshi Miyada
Phone: 55 12 240-8450
Fax: 55 12 240-8378
E-Mail: kiyoshi.avillares.com.br

Fasteners & Metals

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Chemical Analysis

Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen

FA/455	ASTM E1019
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Optical emission spectrochemical analysis

FA/457	ASTM E415
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X-ray fluorescence (XRF) spectrochemical analysis

FA/463	ASTM E1085
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NVLAP LAB CODE 200398-0

Sony Kohda EMC Test Laboratory

1, Aza-Suzumegairi Ohaza-Sakazaki
Kohta-cho
Nukata-gun Aichi 444-0194
JAPAN
Contact: Mr. Shigenori Miyajima
Phone: 81-564-62-2478
Fax: 81-564-62-2478
E-Mail: miyajima@skd.sony.co.jp

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code Designation

Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

NVLAP LAB CODE 200399-0

EMSL Analytical Inc. Bulk And Airborne

Asbestos Fiber Analysis

706 North Aberdeen, Suite 1A

Chicago, IL 60622

Contact: Ms. Lee Harbour

Phone: 312-733-0896

Fax: 312-733-0590

URL: <http://www.emsl.com>

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: March 31, 2000

Airborne Asbestos Analysis (TEM)

Accreditation Valid Through: March 31, 2000

NVLAP LAB CODE 200402-0

Interface Testing Laboratory

1603 Executive Drive, P.O. Box 1503

LaGrange, GA 30240-1503

Contact: Ms. Amy Dawson

Phone: 706-812-6297

Fax: 706-884-8669

E-Mail: amy.dawson@us.interfaceinc.com

Carpet and Carpet Cushion

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
03/T04	16 CFR Part 1630 (FF-1-70)

Tests Applicable to Carpet and Carpet Cushion

03/T04 16 CFR Part 1630 (FF-1-70)

Tests Applicable to Carpets

03/G04 AATCC 165

03/G09 ASTM D1335

03/G10 ASTM D3936

03/G12 ASTM E648

03/G13 ASTM E662

NVLAP LAB CODE 200404-0

ORIX Rentec EMC Center; Electromagnetic Compatibility

3130, Susugaya, Kiyokawa-Mura

Aiko-Gun, Kanagawa 243-0112

JAPAN

Contact: Mr. Kazushige Nagae

Phone: 81-462-88-2971

Fax: 81-462-88-2961

E-Mail: k-nagae@rentec.orix.co.jp

URL: <http://www.calnet.ne.jp>

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
12/T51	AS/NZS 3548

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200407-0

Shanghai Testing & Inspection Institute for Electrical Equipment

505 Wu Ning Road

Shanghai 200063

CHINA

Contact: Mr. Li Guo Heng

Phone: 86-21-62577704

Fax: 86-21-62570453

Efficiency of Electric Motors

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
24/M01	IEEE 112, Method B

24/M01 IEEE 112, Method B

NVLAP LAB CODE 200409-0

Philips Testing Service

One Philips Drive, P.O. Box 14810

Knoxville, TN 37914-1810

Contact: Mr. Fred A. Fisher

Phone: 423-521-4720

Fax: 423-521-4786

E-Mail: fred.fisher@knox.pcec.philips.com

FCC Test Methods

Accreditation Valid Through: June 30, 2000

NVLAP

Code	Designation
12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz

12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200411-0

Piolax Inc.

14-2 Matsuyama-cho
Mooka-shi Tochigi-ken 321-4346
JAPAN
Contact: Mr. Shigenobu Ito
Phone: 81-285-82-4651
Fax: 81-285-84-2884
E-Mail: tokyo@tkc.att.ne.jp

Fasteners & Metals

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Dimensional Inspection

Dimensions of special purpose fasteners and fasteners for highly specialized engineered ap

FB/1146 JIS B7507
FB/1147 JIS B7502
FB/1148 JIS B7524

Mechanical and Physical Testing and Inspection

Adhesion of metallic coatings on fasteners

FA/595 JIS H8504

Measurement of fastener coating thickness - dimensional change method

FB/1145 JIS H8501

Measurement of fastener coating thickness - eddy-current method

FA/618 JIS H8501

Rockwell hardness of fasteners

FA/572 JIS Z2245

Salt spray testing of fasteners

FA/569 JIS Z2371

Vickers hardness - test forces from 9.807 to 1176 N (1 to 120 kgf)

FA/571 JIS Z2244

NVLAP LAB CODE 200415-0

INEEL Materials Testing Lab CFA 602

LMITCO CFA602 MS 4136
P.O. Box 1625
Idaho Falls, ID 83415-4136
Contact: Mr. H. Craig Bean
Phone: 208-526-9941
Fax: 208-526-6673
E-Mail: xhb@inel.gov

Construction Materials Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

Aggregates

02/A07 ASTM C117
02/A09 ASTM C127
02/A10 ASTM C128
02/A12 ASTM C136

02/A44 ASTM C566

Concrete

02/A01 ASTM C39
02/A02 ASTM C617
02/A41 ASTM C192
02/A43 ASTM C1064
02/G01 ASTM C31/C172/C143/C138/C231

Soil and Rock

02/L02 ASTM D422
02/L04 ASTM D698
02/L05 ASTM D854
02/L06 ASTM D1140
02/L08 ASTM D1557
02/L13 ASTM D2216
02/L16 ASTM D2487
02/L20 ASTM D4318
02/L23 ASTM D2922
02/L25 ASTM D3017

Standard Practices

02/A38 ASTM E329

Steel Materials

02/S01 ASTM A370 (Sec. 5-13)/E8

NVLAP LAB CODE 200416-0

COACT Inc. CAFE Laboratory

9140 Guilford Road, Suite L
Columbia, MD 21046
Contact: Mr. James McGehee
Phone: 301-498-0150
Fax: 301-498-0855
E-Mail: jom@coact.com
URL: <http://www.coact.com>

Cryptographic Modules Testing

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

17/C01 NIST-CSTT:140-1; National Institute of Standards and Technology-Cryptographic Support Test Tool (CSTT) for the Federal Information Processing Standard 140-1 (FIPS 140-1) "Security Requirements for Cryptographic Modules."
17/C01a Test Method Group 1: All test methods derived from FIPS 140-1 and specified in the CSTT, except those listed in Group 2 and Group 3.
17/C02 FIPS-Approved Cryptographic Algorithms (see <<http://csrc.nist.gov/cryptval>>) as required in FIPS PUB 140-1.

INDEX D. LISTING OF TESTING LABORATORIES BY NVLAP LAB CODE - continued**NVLAP LAB CODE 200418-0****IBM Endicott EMC Lab**

P.O. Box 5825, Union Station
Endicott, NY 13763-5825
Contact: Mr. Lynn Price
Phone: 607-741-8970
Fax: 607-741-8988
E-Mail: pricela@us.ibm.com

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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Federal Communications Commission (FCC) Methods

12/F01	FCC Method - 47 CFR Part 15 - Digital Devices
12/F01a	Conducted Emissions, Power Lines, 450 KHz to 30 MHz
12/F01b	Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

12/CIS22	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
12/CIS22a	IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
12/CIS22b	CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200422-0**Dayton T. Brown, Inc.**

Church Street
Bohemia, NY 11716
Contact: Mr. Charles Gortakowski
Phone: 516-244-6315
Fax: 516-589-4046
E-Mail: c.gortakowski@daytontbrown.com

MIL-STD-462 Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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Conducted Emissions:

12/A01	MIL-STD-462 Method CE01
12/A04	MIL-STD-462 Method CE02
12/A06	MIL-STD-462 Method CE03
12/A08	MIL-STD-462 Method CE04
12/A10	MIL-STD-462 Method CE06
12/A12	MIL-STD-462 Method CE07
12/A13	MIL-STD-462 Version D Method CE101
12/A14	MIL-STD-462 Version D Method CE102

12/A15	MIL-STD-462 Version D Method CE106
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Conducted Susceptibility:

12/B01	MIL-STD-462 Method CS01
12/B02	MIL-STD-462 Method CS02
12/B04	MIL-STD-462 Method CS03/CS04/CS05/CS08
12/B05	MIL-STD-462 Method CS06
12/B06	MIL-STD-462 Method CS07
12/B07	MIL-STD-462 Method CS09
12/B08	MIL-STD-462 Method CS10
12/B09	MIL-STD-462 Method CS11
12/B10	MIL-STD-462 Method CS12
12/B11	MIL-STD-462 Method CS13
12/B12	MIL-STD-462 Version D Method CS101
12/B13	MIL-STD-462 Version D Method CS103
12/B14	MIL-STD-462 Version D Method CS104
12/B15	MIL-STD-462 Version D Method CS105
12/B16	MIL-STD-462 Version D Method CS109
12/B19	MIL-STD-462 Version D Method CS116

Radiated Emissions:

12/D01	MIL-STD-462 Method RE01
12/D02	MIL-STD-462 Method RE02
12/D03	MIL-STD-462 Method RE03
12/D04	MIL-STD-462 Version D Method RE101
12/D05	MIL-STD-462 Version D Method RE102
12/D06	MIL-STD-462 Version D Method RE103

Radiated Susceptibility:

12/E01	MIL-STD-462 Method RS01
12/E02	MIL-STD-462 Method RS02
12/E03	MIL-STD-462 Method RS03 (Consult laboratory for field strengths available)
12/E04	MIL-STD-462 Method RS03 employing RADHAZ procedures for high level testing (Consult laboratory for field strengths available)
12/E05	MIL-STD-462 Method RS05
12/E07	MIL-STD-462 Method RS06
12/E08	MIL-STD-462 Version D Method RS101
12/E09	MIL-STD-462 Version D Method RS103
12/E10	MIL-STD-462 Version D Method RS105

NVLAP LAB CODE 200424-0**Environmental Science Services, Inc.**

12875 East Locke Road
Lockeford, CA 95237
Contact: Mr. Mike Ostlund
Phone: 209-333-6157
Fax: 209-333-0492
E-Mail: envssl@aol.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200425-0

Sanders A Lockheed Martin Co.

95 Canal Street, P.O. Box 868
Nashua, NH 03061-0868
Contact: Mr. James A. Cirillo
Phone: 603-885-2671
Fax: 603-885-2919
E-Mail: james.a.cirillo@lmco.com

MIL-STD-462 Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Conducted Emissions:

12/A01 MIL-STD-462 Method CE01
12/A06 MIL-STD-462 Method CE03
12/A10 MIL-STD-462 Method CE06
12/A12 MIL-STD-462 Method CE07
12/A13 MIL-STD-462 Version D Method CE101
12/A14 MIL-STD-462 Version D Method CE102
12/A15 MIL-STD-462 Version D Method CE106

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01
12/B02 MIL-STD-462 Method CS02
12/B04 MIL-STD-462 Method
CS03/CS04/CS05/CS08
12/B05 MIL-STD-462 Method CS06
12/B07 MIL-STD-462 Method CS09
12/B09 MIL-STD-462 Method CS11
12/B12 MIL-STD-462 Version D Method CS101
12/B13 MIL-STD-462 Version D Method CS103
12/B14 MIL-STD-462 Version D Method CS104
12/B15 MIL-STD-462 Version D Method CS105
12/B16 MIL-STD-462 Version D Method CS109
12/B17 MIL-STD-462 Version D Method CS114
12/B18 MIL-STD-462 Version D Method CS115
12/B19 MIL-STD-462 Version D Method CS116

Radiated Emissions:

12/D01 MIL-STD-462 Method RE01
12/D02 MIL-STD-462 Method RE02
12/D04 MIL-STD-462 Version D Method RE101
12/D05 MIL-STD-462 Version D Method RE102

Radiated Susceptibility:

12/E01 MIL-STD-462 Method RS01
12/E02 MIL-STD-462 Method RS02
12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)
12/E07 MIL-STD-462 Method RS06
12/E08 MIL-STD-462 Version D Method RS101
12/E09 MIL-STD-462 Version D Method RS103

NVLAP LAB CODE 200431-0

Electromagnetic Environmental Effects

Laboratory

2000 E. El Segundo Blvd.
P.O. Box 902, Bldg. E1, M/S F170
El Segundo, CA 90245-0902
Contact: Mr. Gino G. Bosdachin
Phone: 310-647-4575
Fax: 310-647-4582
E-Mail: gbosdachin@west.raytheon.com

MIL-STD-462 Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Conducted Emissions:

12/A01 MIL-STD-462 Method CE01
12/A06 MIL-STD-462 Method CE03
12/A10 MIL-STD-462 Method CE06
12/A12 MIL-STD-462 Method CE07
12/A14 MIL-STD-462 Version D Method CE102

Conducted Susceptibility:

12/B01 MIL-STD-462 Method CS01
12/B02 MIL-STD-462 Method CS02
12/B04 MIL-STD-462 Method
CS03/CS04/CS05/CS08
12/B05 MIL-STD-462 Method CS06
12/B09 MIL-STD-462 Method CS11
12/B12 MIL-STD-462 Version D Method CS101
12/B17 MIL-STD-462 Version D Method CS114
12/B18 MIL-STD-462 Version D Method CS115
12/B19 MIL-STD-462 Version D Method CS116

Radiated Emissions:

12/D05 MIL-STD-462 Version D Method RE102
12/D06 MIL-STD-462 Version D Method RE103

Radiated Susceptibility:

12/E02 MIL-STD-462 Method RS02
12/E03 MIL-STD-462 Method RS03 (Consult
laboratory for field strengths available)
12/E07 MIL-STD-462 Method RS06
12/E09 MIL-STD-462 Version D Method RS103

NVLAP LAB CODE 200432-0

Sony Kisarazu EMC Test Laboratory

8-4 Shiomi
Kisarazu Chiba 292-0834
JAPAN
Contact: Mr. Somei Kaji
Phone: 814-383-74916
Fax: 814-383-63138
E-Mail: kaji@skz.sony.co.jp

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital

- Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions
- International Special Committee on Radio Interference (CISPR) Methods**
- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment
- 12/CIS22a IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment, Amendment 1:1995, and Amendment 2:1996.
- 12/CIS22b CNS 13438:1997: Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment

NVLAP LAB CODE 200433-0

NEC Kofu, Ltd., EMC Center

1088-3 Ohtsu-cho, Kofu City
Yamanashi-shi 400-0055
JAPAN

Contact: Mr. Shinji Mine
Phone: 81-55-243-4158
Fax: 81-55-243-4229
E-Mail: mine@comc.kofu.nec.co.jp

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200441-0

A-Pex International Co., Ltd. Yamakita Laboratory

907 Kawanishi, Yamakita-machi,
Ashigarakami-gun
258-0124
JAPAN

Contact: Mr. Tetsuya Hashimoto
Phone: 81-596-24-6717
Fax: 81-596-24-8020
E-Mail: hasimt@a-pex.co.jp
URL: http://www.a-pex.co.jp

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Federal Communications Commission (FCC) Methods

- 12/F01 FCC Method - 47 CFR Part 15 - Digital Devices
- 12/F01a Conducted Emissions, Power Lines, 450 KHz to 30 MHz
- 12/F01b Radiated Emissions

International Special Committee on Radio Interference (CISPR) Methods

- 12/CIS22 IEC/CISPR 22:1993: Limits and methods of measurement of radio disturbance characteristics of information technology equipment

NVLAP LAB CODE 200442-0

KSL

8627 Center Street I
P.O. Box 66
Mokelumne Hill, CA 95245
Contact: Mr. Kevin Smith
Phone: 209-286-1822
Fax: 209-286-0706

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: September 30, 2000

NVLAP LAB CODE 200444-0

AGRA Earth & Environmental, Inc., PLM LAB

3232 West Virginia
Phoenix, AZ 85009-1502
Contact: Mr. Bart V. Vermilya
Phone: 602-272-6848
Fax: 602-272-7239
E-Mail: bvermilya@agraus.com

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200452-0

CA Laboratories, L.L.C.

11800 Industriplex, Suite #5
Baton Rouge, LA 70809
Contact: Mr. Arthur Hernandez
Phone: 225-337-4927
Fax: 225-751-5634

Bulk Asbestos Analysis (PLM)

Accreditation Valid Through: December 31, 2000

NVLAP LAB CODE 200445-0

Met Laboratories Incorporated

33429 Western Avenue
Union City, CA 94587
Contact: Mr. Robert Frier
Phone: 410-354-3300
Fax: 410-354-3313
E-Mail: rfrier@metlabs.com
URL: http://www.metlabs.com

FCC Test Methods

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

Australian Standards referred to by clauses in ACA

Technical Standards

12/T51 AS/NZS 3548

Federal Communications Commission (FCC) Methods

12/F01 FCC Method - 47 CFR Part 15 - Digital
Devices

12/F01a Conducted Emissions, Power Lines, 450 KHz
to 30 MHz

12/F01b Radiated Emissions

12/T01 Terminal Equipment Network Protection
Standards, FCC Method - 47 CFR Part 68 -
Analog and Digital

12/T01a 68.302 (Par. c,d,e,f) Environmental simulation;
68.304 Leakage current limit.; 68.306
Hazardous voltage limit.; 68.308 Signal power
limit.; 68.310 Longitudinal balance limit.;
68.312 On-hook impedance limit.; 68.314
Billing protection

12/T01b 68.316 Hearing Aid Compatibility: technical
standards

12/T01c 68.302 Environmental simulation (Par. a,b)

*International Special Committee on Radio Interference
(CISPR) Methods*

12/CIS22 IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment

12/CIS22a IEC/CISPR 22:1993: Limits and methods of
measurement of radio disturbance
characteristics of information technology
equipment, Amendment 1:1995, and
Amendment 2:1996.

12/CIS22b CNS 13438:1997: Limits and Methods of
Measurement of Radio Interference
Characteristics of Information Technology
Equipment

INDEX

E

**LISTING OF
CALIBRATION
LABORATORIES
BY NVLAP
LAB CODE**

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE

NVLAP LAB CODE 105000-0

OAK RIDGE METROLOGY CENTER

P.O. Box 2009
Oak Ridge, TN 37831-7670
Contact: Mr. W. T. (Bill) McKeethan
Phone: 423-574-2707
Fax: 423-574-2802
E-Mail: wmt@ornl.gov
URL: <http://www.ornl.gov/orcmt/mfgqual>

Accreditation Valid Through: March 31, 2000

DIMENSIONAL

NVLAP Code: 20/D03

Gage Blocks, Steel Only

Range	Best Uncertainty (\pm) ^{note 1}	Remarks
0.010 to 0.090	2.4 μ in	Mechanical Comparison
0.01 to 1.000	1.8 μ in	Mechanical Comparison
2.0 to 4.0	2 μ in + 0.8 x 10 ⁻⁶ ; L is length in inches	Mechanical Comparison

NVLAP Code: 20/D05

Length

Range	Best Uncertainty (\pm) ^{note 1}	Remarks
0 - 1.35 m	(0.3 + 0.4L) micrometers; L is length in meters	Step and End Gages using M-60 Coordinate Measuring Machine
0 - 1.2 m	(0.3 + 0.4L) micrometers; L is length in meters	Step and End Gages using M-48 Coordinate Measuring Machine

Grid Plates

Range	Best Uncertainty (\pm) ^{note 1}	Remarks
600 mm x 800 mm	0.6 μ m + 0.45 L μ m; L is length in meters	CMM (optical)

NVLAP Code: 20/D18

Gears

Range	Best Uncertainty (\pm) ^{note 1}	Remarks
to 6" Diameter	0.9 μ m	Involute Profile
to 6" Diameter and Infinite Lead	0.8 μ m	Tooth Alignment
to 6" Diameter and 99" Lead	0.9 μ m	Tooth Alignment
to 6" Diameter and 32" Lead	1.1 μ m	Tooth Alignment
to 6" Diameter and 16" Lead	1.2 μ m	Tooth Alignment
to 6" Diameter and 11" Lead	1.4 μ m	Tooth Alignment
to 6" Diameter (pin offset)	0.7 μ m	Pin Master

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
to 6" Diameter (pin diameter)	0.5 μm	Pin Master
to 6" Diameter (pin roundness)	0.3 μm	Pin Master

TIME AND FREQUENCY

NVLAP Code: 20/F01

Frequency Dissemination

<i>Range</i>	<i>Best Uncertainty (\pm) in Hz^{note 1}</i>	<i>Remarks</i>
1 MHz, 5 MHz, 10 MHz	1.01×10^{-10}	Comparison using FMS
1 MHz, 5 MHz, 10 MHz	5.3×10^{-10}	Comparison
1 Hz to < 1 MHz	$(1 \times 10^{-6} + 0.1 \text{ Hz})^{\text{note 2}}$	Direct Reading
1 MHz to 10 MHz	$1 \times 10^{-8}^{\text{note 2}}$	Direct Reading
>10 MHz to 1 GHz	$1 \times 10^{-7}^{\text{note 2}}$	Direct Reading

MECHANICAL

NVLAP Code: 20/M08

Mass

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
30 kg	95 mg	
20 kg	41 mg	
10 kg	19.4 mg	
5 kg	14.5 mg	
2 kg	13.0 mg	
1 kg	1.31 mg	
500 g	0.66 mg	
200 g	0.29	
100 g	0.136	
50 g	0.072	
20 g	0.038	
10 g	0.029	
5 g	0.0083	
2 g	0.0052	
1 g	0.0052	
500 mg	0.0040	
200 mg	0.0037	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
100 mg	0.0036	
50 mg	0.0036	
20 mg	0.0036	
10 mg	0.0036	
5 mg	0.0036	
2 mg	0.0036	
1 mg	0.0036	

THERMODYNAMICS

NVLAP Code: 20/T07

Resistance Temperature Devices

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0.01 °C to 29.7646 °C	0.001 °C	Comparison

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.
 2. Realizable uncertainty depends on frequency being measured, customer requirements, and suitability of customer's equipment.

NVLAP LAB CODE 105001-0

RICE LAKE WEIGHING SYSTEMS

230 West Coleman Street

P.O. Box 272

Rice Lake, WI 54868

Contact: Mr. Richard Calkins

Phone: 715-234-9171 x243

Fax: 715-234-6967

E-Mail: riccal@rlws.com

URL: <http://www.rlws.com>

Accreditation Valid Through: March 31, 2001

MECHANICAL

NVLAP Code: 20/M08

Mass

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
30 kg	12.1 mg	Class I Facility
20 kg	6.4 mg	Class I Facility
10 kg	1.6 mg	Class I Facility
5 kg	0.84 mg	Class I Facility
3 kg	0.55 mg	Class I Facility
2 kg	0.38 mg	Class I Facility
1 kg	0.057 mg	Class I Facility
500 g	0.037 mg	Class I Facility
300 g	0.029 mg	Class I Facility
200 g	0.027 mg	Class I Facility
100 g	0.030 mg	Class I Facility
50 g	0.0159 mg	Class I Facility
30 g	0.0104 mg	Class I Facility
20 g	0.0080 mg	Class I Facility
10 g	0.0071 mg	Class I Facility
5 g	0.0047 mg	Class I Facility
3 g	0.0036 mg	Class I Facility
2 g	0.0033 mg	Class I Facility
1 g	0.0036 mg	Class I Facility
500 mg	0.00268 mg	Class I Facility
300 mg	0.00216 mg	Class I Facility
200 mg	0.00206 mg	Class I Facility
100 mg	0.00234 mg	Class I Facility
50 mg	0.00168 mg	Class I Facility

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
30 mg	0.00134 mg	Class I Facility
20 mg	0.00128 mg	Class I Facility
10 mg	0.00144 mg	Class I Facility
5 mg	0.0011 mg	Class I Facility
3 mg	0.0009 mg	Class I Facility
2 mg	0.00086 mg	Class I Facility
1 mg	0.00098 mg	Class I Facility
50 kg	99 mg	Class II Facility
30 kg	12 mg	Class II Facility
20 kg	6 mg	Class II Facility
10 kg	1.6 mg	Class II Facility
5 kg	0.84 mg	Class II Facility
3 kg	0.55 mg	Class II Facility
2 kg	0.38 mg	Class II Facility
1 kg	0.06 mg	Class II Facility
500 g	0.04 mg	Class II Facility
300 g	0.03 mg	Class II Facility
200 g	0.03 mg	Class II Facility
100 g	0.030 mg	Class II Facility
50 g	0.016 mg	Class II Facility
30 g	0.010 mg	Class II Facility
20 g	0.008 mg	Class II Facility
10 g	0.007 mg	Class II Facility
5 g	0.0047 mg	Class II Facility
3 g	0.0036 mg	Class II Facility
2 g	0.0033 mg	Class II Facility
1 g	0.0036 mg	Class II Facility
500 mg	0.003 mg	Class II Facility
300 mg	0.002 mg	Class II Facility
200 mg	0.002 mg	Class II Facility
100 mg	0.002 mg	Class II Facility
50 mg	0.002 mg	Class II Facility
30 mg	0.001 mg	Class II Facility
20 mg	0.001 mg	Class II Facility

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
10 mg	0.001 mg	Class II Facility
5 mg	0.001 mg	Class II Facility
3 mg	0.001 mg	Class II Facility
2 mg	0.001 mg	Class II Facility
1 mg	0.001 mg	Class II Facility
1000 kg	29 g	Class III Facility
500 kg	5.1 g	Class III Facility
200 kg	2.7 g	Class III Facility
100 kg	2.7 g	Class III Facility
50 kg	210 mg	Class III Facility
30 kg	12 mg	Class III Facility
20 kg	11 mg	Class III Facility
10 kg	1.9 mg	Class III Facility
5 kg	0.99 mg	Class III Facility
3 kg	0.64 mg	Class III Facility
2 kg	0.47 mg	Class III Facility
1 kg	0.012 mg	Class III Facility
500 g	0.069 mg	Class III Facility
300 g	0.052 mg	Class III Facility
200 g	0.047 mg	Class III Facility
100 g	0.043 mg	Class III Facility
50 g	0.023 mg	Class III Facility
30 g	0.015 mg	Class III Facility
20 g	0.017 mg	Class III Facility
10 g	0.015 mg	Class III Facility
5 g	0.005 mg	Class III Facility
3 g	0.004 mg	Class III Facility
2 g	0.004 mg	Class III Facility
1 g	0.004 mg	Class III Facility
500 mg	0.003 mg	Class III Facility
300 mg	0.002 mg	Class III Facility
200 mg	0.003 mg	Class III Facility
100 mg	0.003 mg	Class III Facility
50 mg	0.002 mg	Class III Facility

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
30 mg	0.002 mg	Class III Facility
20 mg	0.002 mg	Class III Facility
10 mg	0.002 mg	Class III Facility
5 mg	0.001 mg	Class III Facility
3 mg	0.001 mg	Class III Facility
2 mg	0.001 mg	Class III Facility
1 mg	0.001 mg	Class III Facility

NVLAP Code: 20/M08
Mass Avoirdupois

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
2500 lb	46 g	Class III Facility
2000 lb	14 g	Class III Facility
1000 lb	4.8 g	Class III Facility
500 lb	2.7 g	Class III Facility
250 lb	2.7 g	Class III Facility
200 lb	2.6 g	Class III Facility
100 lb	210 mg	Class III Facility
50 lb	15 mg	Class III Facility
30 lb	13 mg	Class III Facility
25 lb	17 mg	Class III Facility
20 lb	2.3 mg	Class III Facility
10 lb	1.10 mg	Class III Facility
5 lb	0.56 mg	Class III Facility
4 lb	1.20 mg	Class III Facility
3 lb	0.38 mg	Class III Facility
2 lb	0.12 mg	Class III Facility
1 lb	0.062 mg	Class III Facility
0.5 lb	0.04 mg	Class III Facility
0.3 lb	0.04 mg	Class III Facility
0.2 lb	0.018 mg	Class III Facility
0.1 lb	0.018 mg	Class III Facility
0.05 lb	0.012 mg	Class III Facility
0.03 lb	0.010 mg	Class III Facility

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0.02 lb	0.010 mg	Class III Facility
0.01 lb	0.003 mg	Class III Facility
0.005 lb	0.002 mg	Class III Facility
0.003 lb	0.001 mg	Class III Facility
0.002 lb	0.001 mg	Class III Facility
0.001 lb	0.001 mg	Class III Facility
4 oz	0.036 mg	Class III Facility
2 oz	0.015 mg	Class III Facility
1 oz	0.016 mg	Class III Facility
1/2 oz	0.011 mg	Class III Facility
1/4 oz	0.010 mg	Class III Facility
1/8 oz	0.009 mg	Class III Facility
1/16 oz	0.009 mg	Class III Facility
1/32 oz	0.010 mg	Class III Facility

-
1. Represents an expanded uncertainty using a coverage factor, k=2.

NVLAP LAB CODE 105002-0

SANDIA NATIONAL LABORATORIES

Primary Electrical Standard Dept. 1542

P.O. Box 5800, Mail Stop 0665

Albuquerque, NM 87185-0665

Contact: Dr. Richard B. Pettit

Phone: 505-844-6242

Fax: 505-844-4372

E-Mail: rbpetti@sandia.gov

URL: <http://www.sandia.gov/psl>

Accreditation Valid Through: December 31, 2000

DIMENSIONAL
NVLAP Code: 20/D01

Angular

<i>Range</i>	<i>Best Uncertainty (\pm) in percent^{note 1}</i>	<i>Remarks</i>
Angle Blocks	0.60 arc second	Standard Sizes, 1 arc second to 45°
Optical Squares	0.46 arc second	
True Squares	0.28 arc second	

NVLAP Code: 20/D03

Gage Blocks

<i>Range</i>	<i>Best Uncertainty (\pm) in percent^{note 1,8}</i>	<i>Remarks</i>
to 100 mm (4 in)	30 nm + 0.14 L	Interferometry with Historical Analysis
to 100 mm (4 in)	34 nm + 0.33 L	Interferometry, single wiring
<1 mm (.04 in)	41 nm	Mechanical Comparison to Masters ^{note 2,3,4}
1 to 100 mm (.04 to 4 in)	35 nm + 0.59 L	Mechanical Comparison to Masters ^{note 2,3,4}
125 to 500 mm (5 to 20 in)	127 nm + 0.30 L	Mechanical Comparison to Masters ^{note 2,3,4}

DC/LOW FREQUENCY
NVLAP Code: 20/E01

Voltage Converters

<i>Best Uncertainty (\pm) in ppm^{note 1}</i>									
<i>Frequency in Hertz</i>									
<i>Range</i>	<i>10</i>	<i>100</i>	<i>1 k</i>	<i>20 k</i>	<i>50 k</i>	<i>100 k</i>	<i>200 k</i>	<i>500 k</i>	<i>1 M</i>
1 V	102	20	23	17	26	42	71	73	75
2 V	101	18	17	21	27	42	72	71	73
3 V	102	16	18	17	27	42	71	73	75
4 V	101	17	17	19	30	42	71	71	72

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>10</i>	<i>100</i>	<i>1 k</i>	<i>20 k</i>	<i>50 k</i>	<i>100 k</i>	<i>200 k</i>	<i>500 k</i>	<i>1 M</i>
6 V	101	16	16	17	27	41	72	74	76
10 V	101	16	18	18	27	41	72	73	74
12 V	101	18	18	16	27	42	72	72	73
20 V	104	19	16	17	30	41	72	76	78
30 V	102	17	16	16	27	42	71	76	77
40 V	101	17	16	19	27	41	73	76	77
60 V	101	23	16	17	27	42	71	71	74
100 V	101	19	16	17	28	43	73	75	75
120 V	102	22	21	22	31	52			
200 V	101	23	22	24	32	51			
300 V	103	29	25	25	34	56			
400 V	102	21	22	22	32	59			
600 V	102	23	22	21	33	57			
1000 V	104	31	29	31	43	69			

NVLAP Code: 20/E01

AC Current Shunts

<i>Range</i>	<i>Frequency</i>	<i>Best Uncertainty (\pm) in percent^{note 1}</i>
10 mA	50 kHz	0.010
25 mA	50 kHz	0.010
50 mA	50 kHz	0.010
100 mA	50 kHz	0.014
250 mA	50 kHz	0.010
500 mA	50 kHz	0.011
1 A	50 kHz	0.011
1 A	100 kHz	0.014
2.5 A	50 kHz	0.011
5 A	50 Hz	0.009
5 A	60 Hz	0.009
5 A	50 kHz	0.011
10 A	50 kHz	0.017
20 A	50 Hz	0.013
20 A	400 Hz	0.013
20 A	1 kHz	0.013
20 A	50 kHz	0.017

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E03

Capacitance Dividers - Pulsed High-Voltage Condition

<i>Range</i>	<i>Best Uncertainty (\pm) in percent^{note 1}</i>	<i>Remarks</i>
1 to 350 kV	2.0	1 to 30 μ s Pulse

NVLAP Code: 20/E05

DC Resistance

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
0.0001 to 0.001	11	Low Resistance
0.001 to 0.01	4	Low Resistance
0.01 to 0.1	2.5	Low Resistance
0.1 to 1	2	Low Resistance
1	0.057	Thomas
1 to 10	1	
10 to 10 ⁴	0.5	
10 k	0.15	SR104
10 ⁵	2	
10 ⁶	3	
10 ⁷	5	
10 ⁸	10	
10 ⁸	240	with Teraohmeter
10 ⁹	330	with Teraohmeter
10 ¹⁰	470	with Teraohmeter
10 ¹¹	670	with Teraohmeter
10 ¹²	1400	with Teraohmeter
10 ¹³	2000	with Teraohmeter
10 ¹⁴	3300	with Teraohmeter
10 ¹⁵	6700	with Teraohmeter
10 ¹⁶	7.0%	with Teraohmeter

Special Resistors

2 and 5	0.5	Reichsanstalt
25 and 100	0.15	Tinsley
28.5	0.5	NBS

Shunts

100 mA to 1000 A	2.5
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INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E06

DC Voltage

Range	Best Uncertainty (\pm) in ppm ^{note 1}	Remarks
1, 1.018 V	0.14	Josephson Array System
10.0 V	0.017	Josephson Array System
1.018 V	0.21	Standard Cell System
1.0 to 10.0 V	0.26	Zener Ref. System

Voltage dividers - Potentiometer combination

1.5 V to 1500 V	2.5	Intermediate System
x1.0 range to 1.05 V	0.5 of reading +0.1 μ V	Potentiometer only,k=3
x1.0 range above 1.05 V	1.0 of reading +0.1 μ V	Potentiometer only,k=3
x0.1 range	1.5 of reading +0.01 μ V	Potentiometer only,k=3
x0.01 range	2.5 of reading +0.005 μ V	Potentiometer only,k=3

High Voltage

to 100 kV	106	200 kV system
100 kV to 200 kV	140	200 kV system
to 10 kV	0.2 %	10 kV system

Ratio/Bridges

1:1 to 1:100,000	0.5 x 10 ⁷ (ratio)	For ratio based on 20 step first dial (k=3). For bridges, uncertainty combines ratio and resistance uncertainties
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NVLAP Code: 20/E08

Inductive Dividers

Range	Best Uncertainty (\pm) in ppm ^{note 1}	Remarks
15, 35 and 100 V	55	@ 60,1 k and 10 kHz

NVLAP Code: 20/E10

LF Capacitance

Range	Best Uncertainty (\pm) in ppm ^{note 1}	Remarks
0.01 to 1000 pF	5	@ 1 kHz

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E11
LF Inductance

Range	Best Uncertainty (\pm) in percent ^{note 1}		
	Frequency in Hz		
	100	1 k	10 k
10 μ H	1.10	0.20	0.20
20 μ H	0.50	0.20	0.20
50 μ H	0.20	0.20	0.20
100 μ H	0.10	0.10	0.10
200 μ H	0.10	0.10	0.10
500 μ H	0.02	0.02	0.05
1 mH	0.02	0.02	0.06
2 mH	0.03	0.03	0.06
5 mH	0.03	0.03	0.06
10 mH	0.02	0.02	0.05
20 mH	0.02	0.02	0.05
50 mH	0.02	0.02	0.05
100 mH	0.02	0.02	0.05
200 mH	0.02	0.02	
500 mH	0.02	0.02	
1 H	0.02	0.05	
2 H	0.02	0.05	
5 H	0.02	0.10	
10 H	0.02	0.20	

NVLAP Code: 20/E18
Resistive Dividers - Pulsed High-Voltage Condition

Range	Best Uncertainty (\pm) in percent ^{note 1}	Remarks
1 to 350 kV	1.0	1 to 30 μ s Pulse

TIME AND FREQUENCY

NVLAP Code: 20/F01

Frequency Dissemination

Range	Best Uncertainty (\pm) ^{note 1}	Remarks
0.1 MHz	1 part in 10^{12}	
1 MHz	1 part in 10^{12}	
5 MHz	1 part in 10^{12}	
10 MHz	1 part in 10^{12}	

IONIZING RADIATION

NVLAP Code: 20/I04

Radioactive Sources

Range	Best Uncertainty (\pm) ^{note 1}	Remarks
Alpha Emission Rate		
1 to 2×10^5 /s into 2π	1.6 %	
Beta Emission Rate		
50 to 5000 /s into 2π	5.0 %	
Alpha Energy		
3 to 8 MeV	30 keV	

MECHANICAL

NVLAP Code: 20/M06

Force

Range	Best Uncertainty (\pm) in percent ^{note 1, 2, 6}	Remarks
100 to 1,000	0.0052	Primary Standard (Deadweight)
1,000 to 100,000	0.016	Secondary Standards (Proving Rings)
50 to 30,000	0.075	Secondary Standards (Load Cells) ^{note 7}

RF MICROWAVE

NVLAP Code: 20/R05

HF Capacitance

Range in pF	Best Uncertainty (\pm) in percent ^{note 1}				
	Frequency in Hz				
	100	1 k	10 k	100 k	1 M
0.01		0.20		1.3	
0.1		0.05		1.3	
1		0.02		0.04	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range in pF</i>	<i>100</i>	<i>1 k</i>	<i>10 k</i>	<i>100 k</i>	<i>1 M</i>
10		0.01		0.02	
100		0.01		0.01	
1000		0.01		0.03	
1		0.02		0.2	0.30
2		0.02		0.35	0.60
5		0.02		0.22	0.26
10		0.10		0.14	0.15
20		0.10		0.13	0.11
50				0.03	0.02
100				0.02	0.02
200				0.01	0.01
500				0.02	0.01
1000				0.02	0.03
10		0.0001			
100		0.0001			
1	0.01	0.01	0.01	0.01	0.01
10	0.01	0.01	0.01	0.01	0.01
100	0.01	0.01	0.01	0.01	0.01
1000	0.01	0.01	0.01	0.01	0.01

NVLAP Code: 20/R06
HF Inductance

Best Uncertainty (±) in percent^{note 1}

Frequency in Hz

<i>Range</i>	<i>10 k</i>	<i>100 k</i>	<i>1 M</i>	<i>10 M</i>
0.1 μ H		2.19	4.00	
0.2 μ H		2.03	2.03	
0.5 μ H		0.80	1.20	
1.0 μ H		0.56	0.92	
2.0 μ H		0.31	0.73	
5.0 μ H		0.25	0.68	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>10 k</i>	<i>100 k</i>	<i>1 M</i>	<i>10 M</i>
10 μ H		0.39	0.63	
25 μ H		0.32	0.16	
50 μ H		0.26	0.12	
100 μ H		0.24	0.11	
250 μ H		0.32	0.16	
500 μ H		0.26	0.09	
1 mH		0.24		
2.5 mH		0.25		
5 mH		0.24		
10 mH		0.29		
25 mH		0.25		
0.25 μ H	1.2	1.4	1.7	0.8
1 μ H	0.4	0.5	0.9	0.6
10 μ H	0.4	0.4	0.6	0.1
100 μ H	0.2	0.2	0.2	

NVLAP Code: 20/R10

Q Standards

<i>Range</i>	<i>Best Uncertainty (\pm) in percent^{note 1}</i>	<i>Remarks</i>
Selected values from 95 to 607	1.2 to 4.5 dependent on Q value and frequency	frequency range 50 kHz to 45 MHz

NVLAP Code: 20/R11

RF-DC Voltage Converter

High Frequency TVC

Best Uncertainty (\pm) in percent^{note 1}

<i>Range</i>	<i>Frequency in Hz</i>				
	<i>1 M</i>	<i>10 M</i>	<i>30 M</i>	<i>50 M</i>	<i>100 M</i>
0.5 V	0.06	0.11	0.21	0.51	1.1
1 V	0.06	0.11	0.21	0.51	1.1
2 V	0.06	0.11	0.21	0.51	1.1
2.5 V	0.06	0.11	0.21	0.51	1.1
3 V	0.06	0.11	0.21	0.51	1.1
5 V	0.06	0.11	0.21		1.1
10 V	0.06	0.11	0.21		1.1

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>1 M</i>	<i>10 M</i>	<i>30 M</i>	<i>50 M</i>	<i>100 M</i>
20 V	0.06	0.11	0.21		1.1
50 V	0.06	0.11	0.22		1.2
100 V	0.06	0.11	0.27		1.5
200 V	0.06	0.12	0.21		1.1

RF TVC

Best Uncertainty (\pm) in percent^{note 1}

Frequency in Hz

<i>Range</i>	<i>300 M</i>	<i>600 M</i>	<i>700 M</i>	<i>800 M</i>	<i>900 M</i>	<i>1000 M</i>
1 V	1.3	1.3	1.3	1.3	1.3	1.3
2.4 V	1.3	1.3	1.3	1.3	1.3	1.3
7 V	1.3	1.3	1.3	1.3	1.3	1.3

Micropotentiometers

Best Uncertainty (\pm) in percent^{note 1}

Frequency in Hz

<i>Range</i>	<i>30 M</i>	<i>100 M</i>	<i>300 M</i>	<i>600 M</i>	<i>900 M</i>
0.1 mV	2.32	3.56	3.36	5.10	5.10
0.2 mV	0.54	1.04	1.02	1.35	1.42
0.4 mV	2.34	3.44	3.18	5.10	5.10
0.9 mV	0.54	1.04	1.05	1.35	1.44
1 mV	2.24	3.33	3.21	5.10	5.10
1.5 mV	0.59	1.02	1.02	1.33	1.33
4 mV	0.53	1.07	1.21	1.38	1.39
5 mV	2.24	3.16	3.17	5.10	5.10
10 mV	2.27	3.19	3.16	5.10	5.10
11 mV	2.25	3.17	3.58	5.10	5.10
25 mV	0.48	0.97	0.97	1.28	1.30
28.5 mV	2.52	3.49	3.95	5.10	
102 mV	0.53	0.99	1.08	1.30	1.28
150 mV	0.43	0.99	1.06	1.32	1.28
320 mV	2.24	3.23	3.18	5.10	5.10
330 mV	0.45	1.01	0.98	1.38	1.29

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/R12

RF/Microwave Bolometer Units

Expanded Uncertainties^{note 1,2,3} on Effective Efficiency & Calibration Factor of HP bolometric power sensors.

Connector Type	Quantity	Quantity Range	Frequency (MHz)			
			50-2000	2000-8000	8000-12000	12000-18000
N	Calibration Factor	0.9 to 1	0.004-0.006	0.004-0.006	0.005-0.007	0.006-0.008
APC-3.5	Calibration Factor	0.9 to 1	-----	0.007-0.009	0.009-0.010	0.010-0.011
N	Effective Efficiency	0.9 to 1	0.004-0.005	0.004-0.005	0.005-0.006	0.006-0.008
APC-3.5	Effective Efficiency	0.9 to 1	-----	0.007-0.008	0.008-0.009	0.009-0.010

NVLAP Code: 20/R13

RF/Microwave Attenuators

Reflection Coefficient (or Scattering Parameter S_{ii})

A. Dual 6-Port Network Analyzer Certification Uncertainties^{note 2,3,4}

Connector Type	Quantity	Quantity Range	Frequency (MHz)			
			50-2000	2000-8000	8000-12000	12000-18000
GR-900	S _{ii}	0 to 1	0.002-0.009	0.002-0.015	-----	-----
N	S _{ii}	0 to 1	0.002-0.008	0.002-0.027	0.006-0.018	0.006-0.030
APC-7	S _{ii}	0 to 1	0.002-0.006	0.002-0.009	0.003-0.018	0.005-0.015
APC-3.5	S _{ii}	0 to 1	0.002-0.012	0.002-0.015	0.005-0.019	0.012-0.050
GR-900	Arg(S _{ii})	0 < S _{ii} < 1 -180 to +180 deg	0.120-180.0	0.019-180.0	-----	-----
N	Arg(S _{ii})	0 < S _{ii} < 1 -180 to +180 deg	0.360-180.0	0.300-180.0	0.600-180.0	0.800-180.0
APC-7	Arg(S _{ii})	0 < S _{ii} < 1 -180 to +180 deg	0.012-180.0	0.200-180.0	0.540-180.0	0.525-180.0
APC-3.5	Arg(S _{ii})	0 < S _{ii} < 1 -180 to +180 deg	0.360-180.0	0.240-180.0	0.540-180.0	0.560-180.0

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

B. HP8510 Vector Network Analyzer Uncertainties

1. Expanded Uncertainties ^{note 1,2,3} on one or two-port devices

Connector Type	Quantity	Quantity Range	Frequency (MHz)			
			50-2000	2000-8000	8000-12000	12000-18000
N	$ S_{ii} $	0 to 1	0.001-0.003	0.001-0.009	0.004-0.009	0.004-0.021
APC-7	$ S_{ii} $	0 to 1	0.001-0.007	0.001-0.003	0.003-0.007	0.001-0.004
APC-3.5	$ S_{ii} $	0 to 1	0.001-0.007	0.004-0.020	0.004-0.020	0.004-0.020
N	$\text{Arg}(S_{ii})$	$0 < S_{ii} < 1$ -180 to +180 deg	0.05-180	0.36-180	1.43-180	1.34-180
APC-7	$\text{Arg}(S_{ii})$	$0 < S_{ii} < 1$ -180 to +180 deg	0.15-180	0.16-180	0.33-180	0.38-180
APC-3.5	$\text{Arg}(S_{ii})$	$0 < S_{ii} < 1$ -180 to +180 deg	0.53-180	0.33-180	0.35-180	0.33-180

2. Certification Uncertainties ^{note 2,3,4} on three-port devices

Connector Type	Quantity	Quantity Range	Frequency (MHz)			
			50-2000	2000-8000	8000-12000	12000-18000
N, APC-7, APC-3.5	$ S_{ii} $	0 to 0.3	0.011 - 0.075	0.011 - 0.075	0.03 - 0.09	0.050 - 0.092
N, APC-7, APC-3.5	$ \Gamma_{ge} $	0 to 0.3	0.011 - 0.080	0.012 - 0.080	0.030 - 0.084	0.071 - 0.119

C. HP8753 Vector Network Analyzer Certification Uncertainties ^{note 2,3,4}

1. One or two-port devices

Connector Type	Quantity	Quantity Range	25-1000	1000-3000
N	$ S_{ii} $	0 to 1	0.001-0.009	0.003-0.016
APC-7	$ S_{ii} $	0 to 1	0.002-0.04	0.002-0.004
APC-3.5	$ S_{ii} $	0 to 1	0.006-0.02	0.006-0.035
N	$\text{Arg}(S_{ii})$	$0 < S_{ii} < 1$ -180 to +180 deg	0.2-70	1-180
APC-7	$\text{Arg}(S_{ii})$	$0 < S_{ii} < 1$ -180 to +180 deg	0.3-180	0.2-25
APC-3.5	$\text{Arg}(S_{ii})$	$0 < S_{ii} < 1$ -180 to +180 deg	1-180	1.6-180

2. Three-port devices

Connector Type	Quantity	Quantity Range	25-1000 (MHz)
N, APC-7-APC-3.5	$ S_{ii} $	0 to 0.3	0.011 - 0.020
N, APC-7-APC-3.5	$ \Gamma_{ge} $	0 to 0.3	0.01 - 0.03

D. Weinschel VM-4B Certification Uncertainties ^{note 2,3,4}

Connector Type	Quantity	Quantity Range	Frequency (MHz)			
			10-2000	2000-8000	8000-12000	12000-18000
N	$ S_{ii} $	0 to 1	0.025-0.080	0.031-0.085	0.040-0.090	0.046-0.112
APC-7	$ S_{ii} $	0 to 1	0.011-0.075	0.015-0.080	0.030-0.085	0.036-0.106
BNC	$ S_{ii} $	0 to 1	0.026-0.060 ^{note 5}	-----	-----	-----

Attenuation (or Scattering Parameter S_{ij})

A. Dual 6-Port Network Analyzer Certification Uncertainties ^{note 2,3,4}

Connector Type	Quantity	Quantity Range	Frequency (MHz)			
			50-2000	2000-8000	8000-12000	12000-18000
GR-900	$ S_{ij} $	0 to 60 dB	0.012-0.390	0.015-0.410	-----	-----
N	$ S_{ij} $	0 to 60 dB	0.012-0.390	0.015-0.410	0.018-0.410	0.021-0.900
APC-7	$ S_{ij} $	0 to 60 dB	0.012-0.390	0.015-0.410	0.020-0.410	0.021-0.900
APC-3.5	$ S_{ij} $	0 to 60 dB	0.012-0.150	0.015-0.410	0.020-0.410	0.030-0.90

B. HP8510 Vector Network Analyzer Uncertainties

1. Expanded Uncertainties^{note 1,2,3} on one or two-port devices

Connector Type	Quantity	Quantity Range	Frequency (MHz)			
			50-2000	2000-8000	8000-12000	12000-18000
N	$ S_{ij} $	0 to 60 dB	0.01-0.12	0.02-0.17	0.03-0.25	0.03-0.48
APC-7	$ S_{ij} $	0 to 60 dB	0.01-0.08	0.01-0.13	0.01-0.13	0.01-0.18
APC-3.5	$ S_{ij} $	0 to 60 dB	0.01-0.12	0.02-0.22	0.04-0.25	0.05-0.49
N	$\text{Arg}(S_{ij})$	$0 < S_{ij} < 60$ dB 0 to 360 deg	0.22-1.19	0.32-1.27	0.36-1.84	0.58-3.46
APC-7	$\text{Arg}(S_{ij})$	$0 < S_{ij} < 60$ dB 0 to 360 deg	0.22-0.73	0.25-1.21	0.41-1.70	0.57-2.85
APC-3.5	$\text{Arg}(S_{ij})$	$0 < S_{ij} < 60$ dB 0 to 360 deg	0.45-0.80	0.35-1.39	0.41-1.94	0.66-3.17

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

2. Certification Uncertainties ^{note 2,3,4} on three-port devices

Connector Type	Quantity	Quantity Range	Frequency (MHz)			
			50-2000	2000-8000	8000-12000	12000-18000
N, APC-7, APC-3.5	Coupling (dB)	3-40 dB	0.071 - 0.320	0.110 - 0.500	0.012 - 0.500	0.320 - 0.600
N, APC-7, APC-3.5	Mainline (dB)	0 to 8 dB	0.020 - 0.221	0.020 - 0.221	0.020 - 0.221	0.131 - .290
N, APC-7 APC-3.5	Directivity (dB)	15-25 dB	0.19 - 9.2	0.53 - 9.2	0.80 - 9.2	1.55 - 9.2
N, APC-7, APC-3.5	Directivity (dB)	30-40 dB	1.0 - ∞	2.6 - ∞	5.7 - ∞	7.2 - ∞

C. HP8753 Vector Network Analyzer Certification Uncertainties ^{note 2,3,4}

1. One or two-port devices

Connector Type	Quantity	Quantity Range	Frequency (MHz)	
			25-1000	1000-3000
N	S _{ij}	0 to 60 dB	0.003-0.5	0.004-1.2
APC-7	S _{ij}	0 to 60 dB	0.002-0.6	0.003-0.9
APC-3.5	S _{ij}	0 to 60 dB	0.003-0.6	0.003-1.0
APC-3.5	Arg(S _{ij})	0 < S _{ij} < 60 dB 0 to 360 deg	0.4-10	0.4-10

2. Three-port devices

Connector Type	Quantity	Quantity Range	25-1000 (MHz)
N, APC-7-APC-3.5	Coupling (dB)	3-20 dB	0.050 - 0.230
N, APC-7-APC-3.5	Mainline (dB)	0 to 8 dB	0.020 - 0.050
N, APC-7-APC-3.5	Directivity (dB)	15-25 dB	0.9 - 3.8
N, APC-7-APC-3.5	Directivity (dB)	30-40 dB	4 - ∞

D. Weinschel VM-4B Certification Uncertainties ^{note 2,3,4} on Attenuation

Connector Type	Quantity	Quantity Range	Frequency (MHz)			
			10-2000	2000-8000	8000-12000	12000-18000
N	S _{ij}	0 to 100 dB	0.06-0.60	0.10-1.10	0.25-1.52	0.38-1.80
APC-7	S _{ij}	0 to 100 dB	0.06-0.60	0.10-1.00	0.20-1.43	0.30-1.75
BNC	S _{ij}	0 to 100 dB	0.10-0.90 ^{note 5}	-----	-----	-----

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

E. Power Ratio Attenuation Expanded Uncertainties^{note 1,2,3}

Connector Type	Quantity	Quantity Range	Frequency (MHz)			
			10-2000	2000-8000	8000-12000	12000-18000
Fixed Attenuators or Step/Variable Attenuators						
N, APC-7 APC-3.5	S _{ij}	0 to 11 dB	0.008-0.014 + Mismatch Unc.	0.014-0.016 + Mismatch Unc.	0.013-0.015 + Mismatch Unc.	0.015-0.018 + Mismatch Unc.
Isolated Step/Variable Attenuators						
N, APC-7 APC-3.5	S _{ij}	0 to 11 dB	0.008-0.014	0.014-0.016	0.013-0.015	0.015-0.018

NVLAP Code: 20/R16

Group Delay Certification Uncertainties^{note 2,3,4}

Connector Type	Typical Atten. (dB)	Delay (ns)	50-1000 (MHz)
APC-7, N, APC-3.5	0.08	5	0.02 - 0.05
APC-7, N, APC-3.5	0.21	15	0.04 - 0.13
APC-7, N, APC-3.5	0.8	50	0.05 - 0.12
APC-7, N, APC-3.5	3	200	0.15 - 0.41
APC-7, N, APC-3.5	2.2	385	0.46 - 0.50

NVLAP Code: 20/R17

RF/Microwave Power Meters

CW Power Certification Uncertainties^{note 2,3,4}

A. Low to Medium Power CW Microwave Power Meter Calibration at Type N Connector

Quantity	Quantity Range	Frequency (MHz)			
		1 to 2000	2000 to 4000	4000 to 12400	12400 to 16500
Power (dBm)	-30 to -10	.09 to .41 dB	.13 to .41 dB	.14 to .34 dB	.16 to .46 dB
Power (dBm)	-10 to 10	.06 to .27 dB	.10 to .25 dB	.11 to .30 dB	-----
Power (dBm)	10 to 30	.06 to .25 dB	.10 to .21 dB	.11 to .24 dB	-----

B. Low Power, Wide Range, CW Microwave Power Meter Calibration at Type N Connector

Quantity	Quantity Range	Frequency (MHz)		
		30 to 4000	4000 to 8000	8000 to 12400
Power (dBm)	-60 to -50	0.20 to 0.41 dB	0.25 to 0.43 dB	0.24 to 0.43 dB
Power (dBm)	-50 to -40	0.18 to 0.29 dB	0.23 to 0.35 dB	0.22 to 0.35 dB
Power (dBm)	-40 to -30	0.14 to 0.25 dB	0.16 to 0.32 dB	0.20 to 0.32 dB
Power (dBm)	-30 to -20	0.14 to 0.23 dB	0.16 to 0.27 dB	0.18 to 0.27 dB

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

C. Medium Power CW Microwave Power Meter Calibration at Type N Connector

<i>Quantity</i>	<i>Quantity Range</i>	<i>Frequency (MHz)</i>		
		<i>12 to 1000</i>	<i>240</i>	<i>2000 to 2500</i>
Power (mW)	1 to 10	1.7 to 3.3%	-----	-----
Power (mW)	1 to 100	-----	-----	3.1 to 4.3%
Power (mW)	80 to 160	-----	1.9 to 2.4%	-----

D. Medium Power CW Microwave Power Meter Calibrations at APC-3.5 Connector

<i>Quantity</i>	<i>Quantity Range</i>	<i>Frequency (MHz)</i>		
		<i>2000 to 4000</i>	<i>4000 to 8000</i>	<i>8000 to 18000</i>
Power (mW)	0.1 to 8	2.8 to 4.0%	3.0 to 4.9%	4.0 to 5.8%

E. High Power CW Microwave Power Meter Calibrations at Type N Connector

<i>Quantity</i>	<i>Quantity Range</i>	<i>Frequency (MHz)</i>	
		<i>13.6 to 300</i>	<i>300 to 3000</i>
Power (Watts)	0.2 to 10	9.0 to 9.1%	3.3 to 10.6%
Power (Watts)	10 to 200	4.4 to 10.1%	9.6 to 10.6%

Pulse Power Certification Uncertainties^{note 2,3,4}

A. Pulse Power Meter Calibrations at Type N Connector

<i>Quantity</i>	<i>Quantity Range</i>	<i>2000</i>
Power (mW)	10 to 100	7.3 to 8.2%

THERMODYNAMICS

NVLAP Code: 20/T04

Leak Artifacts

<i>Range</i>	<i>Best Uncertainty (±) in percent^{note 1}</i>	<i>Remarks</i>
Gas Leak - PΔV Technique		
1 x 10 ⁻⁷ moles/s	0.7	Total Gas Measurement
1 x 10 ⁻⁸ moles/s	0.9	Total Gas Measurement
1 x 10 ⁻⁹ moles/s	1.0	Total Gas Measurement
1 x 10 ⁻¹⁰ moles/s	1.0	Total Gas Measurement
Gas Leak - Accumulate - Dump Technique		
1 x 10 ⁻¹⁰ moles/s to 1 x 10 ⁻¹⁴ moles/s	1.0	1 to 200 Atomic Mass Units for any non-reactive, non- hazardous, non-radioactive gas

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm) in percent^{note 1}</i>	<i>Remarks</i>
Gas Leak - Comparison Technique		
1 x 10 ⁻¹⁰ moles/s	2.5	Helium
1 x 10 ⁻¹¹ moles/s	2.4	Helium
1 x 10 ⁻¹² moles/s	2.3	Helium
1 x 10 ⁻¹³ moles/s	2.3	Helium
1 x 10 ⁻¹⁴ moles/s	7.0	Helium
 NVLAP Code: 20/T05		
Pressure		
<i>Range</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
Pneumatic Deadweight Piston Gauges (absolute mode) - Direct Pressure Comparison		
0.2 to 24 psia [\approx 1.4 to 170 kPa]	31	Nitrogen
2.0 to 70 psia [\approx 14 to 480 kPa]	28	Nitrogen
52 to 1000 psia [\approx 0.4 to 7.0 MPa]	46	Nitrogen
Pneumatic Deadweight Piston Gauges (gauge mode) - Direct Pressure Comparison		
0.2 to 24 psig [\approx 1.4 to 170 kPa]	29	Nitrogen
2.0 to 70 psig [\approx 14 to 480 kPa]	26	Nitrogen
52 to 1000 psig [\approx 0.4 to 7.0 MPa]	44	Nitrogen
Hydraulic Deadweight Piston Gauges (gauge mode) - Direct Pressure Comparison		
0.4 to 4.0 kpsig [\approx 2.8 to 28 MPa]	44	Oil
2.0 to 20 kpsig [\approx 14 to 140 MPa]	61	Oil
4.0 to 40 kpsig [\approx 28 to 280 MPa]	59	Oil
Pneumatic Deadweight Piston Gauges - Cross Float (effective area)		
0.2 to 24 psig [\approx 14 kPa to 170 kPa]	35	Nitrogen
2.0 to 70 psig [\approx 14 kPa to 480 kPa]	33	Nitrogen
52 to 1000 psig [\approx 0.4 MPa to 7.0 MPa]	46	Nitrogen
Hydraulic Deadweight Piston Gauges - Cross Float (effective area)		
0.4 to 4.0 kpsig [\approx 2.8 to 28 MPa]	46	Oil
2.0 to 20 kpsig [\approx 14 to 140 MPa]	67	Oil
4.0 to 40 kpsig [\approx 28 to 280 MPa]	61	Oil

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

Secondary Pressure Low Range Absolute

<i>Pressure</i>	<i>Best Uncertainty (\pm) in psia^{note 1}</i>	<i>Remarks</i>
0.2 psia [\approx 1.4 kPa]	0.0013	Nitrogen
1.0 psia [\approx 7.0 kPa]	0.0013	Nitrogen
6.0 psia [\approx 41 kPa]	0.0017	Nitrogen
10 psia [\approx 70 kPa]	0.0021	Nitrogen
15 psia [\approx 100 kPa]	0.0028	Nitrogen

Secondary Pressure Low Range Gauge or Absolute

<i>Pressure</i>	<i>Best Uncertainty (\pm) in psi^{note 1}</i>	<i>Remarks</i>
20 psi [\approx 140 kPa]	0.009	Nitrogen
40 psi [\approx 280 kPa]	0.010	Nitrogen
60 psi [\approx 410 kPa]	0.011	Nitrogen
80 psi [\approx 550 kPa]	0.013	Nitrogen
100 psi [\approx 690 kPa]	0.014	Nitrogen

Secondary Pressure Mid-Range Gauge or Absolute

<i>Pressure</i>	<i>Best Uncertainty (\pm) in psi^{note 1}</i>	<i>Remarks</i>
200 psi [\approx 1.4 MPa]	0.137	Nitrogen
500 psi [\approx 3.4 MPa]	0.157	Nitrogen
1.0 kpsi [\approx 7.0 MPa]	0.201	Nitrogen
1.5 kpsi [\approx 10 MPa]	0.247	Nitrogen
2.0 kpsi [\approx 14 MPa]	0.280	Nitrogen

Secondary Pressure High-Range Gauge or Absolute

4.0 kpsi [\approx 28 MPa]	0.6	Nitrogen
6.0 kpsi [\approx 41 MPa]	0.8	Nitrogen
8.0 kpsi [\approx 55 MPa]	1.0	Nitrogen
10 kpsi [\approx 70 MPa]	1.0	Nitrogen

NVLAP Code: 20/T07 Resistance Thermometry

<i>Temperature ($^{\circ}$C)</i>	<i>Best Uncertainty (\pm) in m $^{\circ}$C^{note 1}</i>	<i>Material/Equilibrium State</i>
-189.3442	0.53	Ar/Triple Point
-38.8344	0.30	Hg/Triple Point

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Temperature (°C)</i>	<i>Best Uncertainty (±) in m °C^{note 1}</i>	<i>Material/Equilibrium State</i>
0.01	0.16	H ₂ O/Triple Point
29.7646	0.12	Ga/Melting Point
156.5985	2.00	In/Freezing Point
231.928	0.92	Sn/Freezing Point
419.527	1.10	Zn/Freezing Point
660.323	5.0	Al/Freezing Point
961.78	10.0	Ag/Freezing Point
Standard Platinum Resistance Thermometer Calibrations		
-189.3442	1.1	Ar/Triple Point
-38.8344	0.6	Hg/Triple Point
0.01	0.6	H ₂ O/Triple Point
29.7646	0.6	Ga/Melting Point
156.5985	2.6	In/Freezing Point
231.928	1.8	Sn/Freezing Point
419.527	2.0	Zn/Freezing Point
660.323	5.2	Al/Freezing Point
961.78	10.1	Ag/Freezing Point
Comparison Calibrations		
<i>Temperature Range (°C)</i>	<i>Best Uncertainty (±) in °C^{note 1}</i>	<i>Type of Device</i>
-80 to 0	0.10	Thermocouples
10 to 150	0.10	Thermocouples
150 to 660	0.22	Thermocouples
660 to 700	0.47	Thermocouples
700 to 1100	2.5	Thermocouples
1100 to 1300	2.8	Thermocouples
-80 to 0	0.06	RTD/IPRT/PRT
10 to 150	0.09	RTD/IPRT/PRT
150 to 660	0.21	RTD/IPRT/PRT
-80 to 0	0.05	Liquid in Glass
10 to 150	0.06	Liquid in Glass
-80 to 0	0.06	Thermistors

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Temperature Range (°C)</i>	<i>Best Uncertainty (±) in °C^{note 1}</i>	<i>Type of Device</i>
10 to 150	0.09	Thermistors
150 to 250	0.21	Thermistors

Thermocouple Simulator/Readout Calibration Methods

<i>Type</i>	<i>ITS-90 Temperature Range (°C)</i>	<i>Best Uncertainty (±) in °C^{note 1,9}</i>	<i>NIST Monograph 175 Reference Table^{note 10}</i>
K	-200 TO 1370	0.10 to 0.30	7.3.3
J	-200 to 1200	0.08 to 0.22	6.3.3
E	-240 to 1000	0.07 to 0.38	5.3.3
T	-240 to 400	0.09 to 0.53	9.3.3
R	-50 to 1750	0.38 to 1.09	3.3.3
S	-50 to 1750	0.43 to 1.02	4.3.3
B	100 to 1750	0.43 to 4.45	2.3.3
C	0 to 2300	0.24 to 0.82	

NVLAP Code: 20/T10

Vacuum

<i>Range</i>	<i>Best Uncertainty (±) in percent^{note 1}</i>	<i>Remarks</i>
Ionization Gage Reference for direct comparison		
1.3 x 10 ⁻⁶ Pa < reading ≤ 1.3 x 10 ⁻⁵ Pa	4.8	N ₂ ; 10 ⁻⁸ Torr
1.3 x 10 ⁻⁵ Pa < reading ≤ 1.3 x 10 ⁻⁴ Pa	4.7	N ₂ ; 10 ⁻⁷ Torr
1.3 x 10 ⁻⁴ Pa < reading ≤ 1.3 x 10 ⁻³ Pa	4.7 - 2.5	N ₂ ; 10 ⁻⁶ Torr
Spinning Rotor Gage Reference for direct comparison		
1.3 x 10 ⁻⁴ Pa < reading ≤ 1.3 x 10 ⁻³ Pa	4.3 - 2.1	N ₂ ; 10 ⁻⁶ Torr
1.3 x 10 ⁻³ Pa < reading ≤ 1.3 Pa	2.1	N ₂ ; 10 ⁻⁵ Torr - 10 ⁻³ Torr
1.3 Pa ≤ reading ≤ 13 Pa	2.2	N ₂ ; 10 ⁻³ Torr
Capacitance Diaphragm Gages Reference for direct comparison		
1.3 x 10 ⁻¹ Pa ≤ reading ≤ 13.3 Pa	2.1 - 0.7	N ₂ ; 0.1 Torr range
13.3 Pa ≤ reading ≤ 133.3 Pa	0.7	N ₂ ; 1 Torr range
133.3 Pa ≤ reading ≤ 1.3 kPa	0.4	N ₂ ; 10 Torr range
1.3 kPa ≤ reading ≤ 13.3 kPa	0.2	N ₂ ; 100 Torr range
13.3 kPa ≤ reading ≤ 133.3 kPa	0.6 to 0.1	N ₂ ; 1000 Torr range

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

Secondary Capacitance Diaphragm Gages Reference for direct comparison

$1.3 \times 10^{-1} \text{ Pa} \leq \text{reading} \leq 13.3 \text{ Pa}$	2.2 to 0.9	N ₂ ; 0.1 Torr range
$13.3 \text{ Pa} \leq \text{reading} \leq 133.3 \text{ Pa}$	1.1	N ₂ ; 1 Torr range
$133.3 \text{ Pa} \leq \text{reading} \leq 1.3 \text{ kPa}$	0.5	N ₂ ; 10 Torr range
$1.3 \text{ kPa} \leq \text{reading} \leq 13.3 \text{ kPa}$	0.5	N ₂ ; 100 Torr range
$13.3 \text{ kPa} \leq \text{reading} \leq 133.3 \text{ kPa}$	0.59 to 0.11	N ₂ ; 1000 Torr range

1. Expanded uncertainty with coverage factor of $k=2$, unless otherwise specified.
2. Approximate value. Actual value determined by test results.
3. The uncertainty ranges are the lowest and highest uncertainty values within the specified frequency range and quantity range.
4. Uncertainty consists of an appropriate combination of the measurement uncertainty (which includes all significant sources of uncertainty associated with the calibration process) and uncertainties due to use, environment, handling or variation with time over the certification interval.
5. Maximum frequency for BNC is 1000 MHz.
6. ASTM loading range classes (e.g., A, AA) are not used or reported.
7. Calibrations to 30,000 lbf versus load cells can be automated; other calibrations are manual.
8. Uncertainties listed are linearized forms $(A' + B'L)$ of uncertainties calculated as root sum squares of constant and length-dependent terms $\{A^2 + (BL)^2\}^{1/2}$. A' and B' are calculated by fitting a straight line through the RSS uncertainty values at the upper and lower limits of range.
9. Uncertainty is dependent on the specific temperature point tested.
10. Referenced tables in NIST Monograph 175 (April 1993) provide values for emf E output/input of the thermocouple simulator/readout and the Seebeck coefficient S for the specific temperature points within the specified ranges. The best uncertainty (at $k=2$) of the emf E in μV is equal to the product of $U * S$, where U is the best uncertainty (at $k=2$) of the temperature point tested.

NVLAP LAB CODE 105003-0

MINNESOTA METROLOGY LABORATORY

2277 Hwy. 36
St. Paul, MN 55113-3800
Contact: Ms. Carol Hockert
Phone: 651-628-6851
Fax: 651-639-4014
E-Mail: chockert@dpsv.state.mn.us

Accreditation Valid Through: December 31, 2000

DIMENSIONAL

NVLAP Code: 20/D13

Surveying Rods and Tapes

<i>Range in inches</i>	<i>Best Uncertainty (\pm) in inches^{note 1}</i>	<i>Remarks</i>
1	0.0028	Rigid Rules
2	0.0028	Rigid Rules
3	0.0028	Rigid Rules
4	0.0028	Rigid Rules
5	0.0028	Rigid Rules
6	0.0028	Rigid Rules
7	0.0028	Rigid Rules
8	0.0028	Rigid Rules
9	0.0028	Rigid Rules
10	0.0028	Rigid Rules
11	0.0028	Rigid Rules
12	0.0028	Rigid Rules
24	0.0049	Rigid Rules
36	0.0069	Rigid Rules
48	0.0089	Rigid Rules
60	0.0109	Rigid Rules
72	0.0129	Rigid Rules

<i>Range in feet</i>	<i>Best Uncertainty (\pm) in inches^{note 1}</i>	<i>Remarks</i>
1	0.0048	Metal Tapes (Bench Method)
2	0.0065	Metal Tapes (Bench Method)
3	0.0079	Metal Tapes (Bench Method)
4	0.0090	Metal Tapes (Bench Method)
5	0.0100	Metal Tapes (Bench Method)
6	0.0110	Metal Tapes (Bench Method)

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range in feet</i>	<i>Best Uncertainty (\pm) in inches^{note 1}</i>	<i>Remarks</i>
7	0.0118	Metal Tapes (Bench Method)
8	0.0126	Metal Tapes (Bench Method)
9	0.0134	Metal Tapes (Bench Method)
10	0.0141	Metal Tapes (Bench Method)
20	0.0200	Metal Tapes (Bench Method)
30	0.0244	Metal Tapes (Bench Method)
40	0.0283	Metal Tapes (Bench Method)
50	0.0317	Metal Tapes (Bench Method)
60	0.0345	Metal Tapes (Bench Method)
70	0.0374	Metal Tapes (Bench Method)
80	0.0400	Metal Tapes (Bench Method)
90	0.0424	Metal Tapes (Bench Method)
100	0.0447	Metal Tapes (Bench Method)
110	0.0469	Metal Tapes (Bench Method)
120	0.0489	Metal Tapes (Bench Method)
130	0.0509	Metal Tapes (Bench Method)
140	0.0529	Metal Tapes (Bench Method)
150	0.0548	Metal Tapes (Bench Method)
160	0.0566	Metal Tapes (Bench Method)
170	0.0584	Metal Tapes (Bench Method)
180	0.0600	Metal Tape (Bench Method)
190	0.0616	Metal Tape (Bench Method)
200	0.0632	Metal Tape (Bench Method)

<i>Range in feet</i>	<i>Best Uncertainty (\pm) in feet^{note 1}</i>	<i>Remarks</i>
1	0.0054	Steel Tape (Tape-to-Tape)
2	0.0054	Steel Tape (Tape-to-Tape)
3	0.0054	Steel Tape (Tape-to-Tape)
4	0.0054	Steel Tape (Tape-to-Tape)
5	0.0054	Steel Tape (Tape-to-Tape)
6	0.0054	Steel Tape (Tape-to-Tape)
7	0.0054	Steel Tape (Tape-to-Tape)
8	0.0054	Steel Tape (Tape-to-Tape)
9	0.0054	Steel Tape (Tape-to-Tape)

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range in feet</i>	<i>Best Uncertainty (\pm) in feet^{note 1}</i>	<i>Remarks</i>
10	0.0054	Steel Tape (Tape-to-Tape)
20	0.0054	Steel Tape (Tape-to-Tape)
30	0.0054	Steel Tape (Tape-to-Tape)
40	0.0054	Steel Tape (Tape-to-Tape)
50	0.0054	Steel Tape (Tape-to-Tape)
60	0.0108	Steel Tape (Tape-to-Tape)
70	0.0108	Steel Tape (Tape-to-Tape)
80	0.0108	Steel Tape (Tape-to-Tape)
90	0.0108	Steel Tape (Tape-to-Tape)
100	0.0108	Steel Tape (Tape-to-Tape)
110	0.0162	Steel Tape (Tape-to-Tape)
120	0.0162	Steel Tape (Tape-to-Tape)
130	0.0162	Steel Tape (Tape-to-Tape)
140	0.0162	Steel Tape (Tape-to-Tape)
150	0.0162	Steel Tape (Tape-to-Tape)
160	0.0215	Steel Tape (Tape-to-Tape)
170	0.0215	Steel Tape (Tape-to-Tape)
180	0.0215	Steel Tape (Tape-to-Tape)
190	0.0215	Steel Tape (Tape-to-Tape)
200	0.0215	Steel Tape (Tape-to-Tape)
1	0.0018	Pi Tapes (Bench Method)
2	0.0031	Pi Tapes (Bench Method)
3	0.0036	Pi Tapes (Bench Method)
4	0.0037	Pi Tapes (Bench Method)
5	0.0042	Pi Tapes (Bench Method)
6	0.0053	Pi Tapes (Bench Method)
7	0.0044	Pi Tapes (Bench Method)
8	0.0060	Pi Tapes (Bench Method)
9	0.0074	Pi Tapes (Bench Method)
10	0.0066	Pi Tapes (Bench Method)

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

MECHANICAL*NVLAP Code:* 20/M08

Mass

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
50 kg	131.2 mg	Accuracy Class I
30 kg	79.8 mg	Accuracy Class I
20 kg	57.5 mg	Accuracy Class I
10 kg	1.9 mg	Accuracy Class I
5 kg	0.22 mg	Accuracy Class I
3 kg	0.14 mg	Accuracy Class I
2 kg	0.10 mg	Accuracy Class I
1 kg	0.04 mg	Accuracy Class I
500 g	0.025 mg	Accuracy Class I
300 g	0.018 mg	Accuracy Class I
200 g	0.015 mg	Accuracy Class I
100 g	0.014 mg	Accuracy Class I
50 g	0.011 mg	Accuracy Class I
30 g	0.008 mg	Accuracy Class I
20 g	0.0064 mg	Accuracy Class I
10 g	0.0065 mg	Accuracy Class I
5 g	0.0033 mg	Accuracy Class I
3 g	0.0021 mg	Accuracy Class I
2 g	0.0015 mg	Accuracy Class I
1 g	0.0012 mg	Accuracy Class I
500 mg	0.0013 mg	Accuracy Class I
300 mg	0.0011 mg	Accuracy Class I
200 mg	0.0011 mg	Accuracy Class I
100 mg	0.0014 mg	Accuracy Class I
50 mg	0.0008 mg	Accuracy Class I
30 mg	0.0006 mg	Accuracy Class I
20 mg	0.0005 mg	Accuracy Class I
10 mg	0.0006 mg	Accuracy Class I
5 mg	0.0003 mg	Accuracy Class I
3 mg	0.0003 mg	Accuracy Class I
2 mg	0.0002 mg	Accuracy Class I
1 mg	0.0003 mg	Accuracy Class I

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
1000 kg	10.4 g	Accuracy Class II
500 kg	1.5 g	Accuracy Class II
300 kg	1.5 g	Accuracy Class II
200 kg	1.5 g	Accuracy Class II
100 kg	1.3 g	Accuracy Class II
50 kg	181.1 mg	Accuracy Class II
30 kg	106.8 mg	Accuracy Class II
20 kg	78.7 mg	Accuracy Class II
10 kg	15.6 mg	Accuracy Class II
5 kg	2.64 mg	Accuracy Class II
3 kg	1.72 mg	Accuracy Class II
2 kg	1.30 mg	Accuracy Class II
1 kg	0.503 mg	Accuracy Class II
500 g	0.253 mg	Accuracy Class II
300 g	0.153 mg	Accuracy Class II
200 g	0.110 mg	Accuracy Class II
100 g	0.057 mg	Accuracy Class II
50 g	0.035 mg	Accuracy Class II
30 g	0.029 mg	Accuracy Class II
20 g	0.013 mg	Accuracy Class II
10 g	0.012 mg	Accuracy Class II
5 g	0.0086 mg	Accuracy Class II
3 g	0.0082 mg	Accuracy Class II
2 g	0.0081 mg	Accuracy Class II
1 g	0.0080 mg	Accuracy Class II
500 mg	0.0018 mg	Accuracy Class II
300 mg	0.0016 mg	Accuracy Class II
200 mg	0.0016 mg	Accuracy Class II
100 mg	0.0018 mg	Accuracy Class II
50 mg	0.0014 mg	Accuracy Class II
30 mg	0.0013 mg	Accuracy Class II
20 mg	0.0012 mg	Accuracy Class II
10 mg	0.0013 mg	Accuracy Class II
5 mg	0.0012 mg	Accuracy Class II

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
3 mg	0.0012 mg	Accuracy Class II
2 mg	0.0012 mg	Accuracy Class II
1 mg	0.0012 mg	Accuracy Class II
1000 kg	13.6 g	Tolerance Test
500 kg	8.1 g	Tolerance Test
300 kg	6.1 g	Tolerance Test
200 kg	4.8 g	Tolerance Test
100 kg	1.7 g	Tolerance Test
50 kg	359.7 mg	Tolerance Test
30 kg	242.6 mg	Tolerance Test
20 kg	68.3 mg	Tolerance Test
10 kg	46.5 mg	Tolerance Test
5 kg	7.78 mg	Tolerance Test
3 kg	5.87 mg	Tolerance Test
2 kg	4.43 mg	Tolerance Test
1 kg	2.39 mg	Tolerance Test
500 g	2.138 mg	Tolerance Test
300 g	1.674 mg	Tolerance Test
200 g	0.326 mg	Tolerance Test
100 g	0.206 mg	Tolerance Test
50 g	0.122 mg	Tolerance Test
30 g	0.100 mg	Tolerance Test
20 g	0.067 mg	Tolerance Test
10 g	0.056 mg	Tolerance Test
5 g	0.049 mg	Tolerance Test
3 g	0.047 mg	Tolerance Test
2 g	0.045 mg	Tolerance Test
1 g	0.045 mg	Tolerance Test
500 mg	0.022 mg	Tolerance Test
300 mg	0.022 mg	Tolerance Test
200 mg	0.022 mg	Tolerance Test
100 mg	0.020 mg	Tolerance Test
50 mg	0.019 mg	Tolerance Test
30 mg	0.018 mg	Tolerance Test

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
20 mg	0.015 mg	Tolerance Test
10 mg	0.014 mg	Tolerance Test
5 mg	0.014 mg	Tolerance Test
3 mg	0.014 mg	Tolerance Test
2 mg	0.012 mg	Tolerance Test
1 mg	0.012 mg	Tolerance Test

NVLAP Code: 20/M12

Volume

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
10000 ml	0.6248 ml	Gravimetric Method
1000 ml	0.0628 ml	Gravimetric Method
100 ml	0.00617 ml	Gravimetric Method
10 ml	0.00063 ml	Gravimetric Method
1 ml	0.00010 ml	Gravimetric Method
5 gal	0.484 in ³	Small Volume Volumetric
1500 gal	40.87 in ³	Large Volume Volumetric
1000 gal	27.25 in ³	Large Volume Volumetric
500 gal	13.62 in ³	Large Volume Volumetric
100 gal	2.72 in ³	Large Volume Volumetric
100 gal	7.71 in ³	LPG Volumetric
25 gal	2.68 in ³	LPG Volumetric

Density in the Range of 2.7 to 9.4 g/cm³

<i>Mass Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
5 kg	0.00058 g/cm ³	
3 kg	0.00051 g/cm ³	
2 kg	0.00039 g/cm ³	
1 kg	0.00017 g/cm ³	
500 g	0.00188 g/cm ³	
300 g	0.00598 g/cm ³	

<i>Mass Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
200 g	0.00300 g/cm ³	
100 g	0.00220 g/cm ³	
50 g	0.00170 g/cm ³	
30 g	0.00170 g/cm ³	
20 g	0.00163 g/cm ³	
10 g	0.00162 g/cm ³	

THERMODYNAMICS

NVLAP Code: 20/T03

Laboratory Thermometers

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
Triple Point of Water (TPW)	0.0303 °C	Liquid-in-glass
10 °C	0.0731 °C	Liquid-in-glass
20 °C	0.0731 °C	Liquid-in-glass
30 °C	0.0731 °C	Liquid-in-glass
40 °C	0.0731 °C	Liquid-in-glass
50 °C	0.0731 °C	Liquid-in-glass
60 °C	0.0731 °C	Liquid-in-glass
70 °C	0.0731 °C	Liquid-in-glass
80 °C	0.0731 °C	Liquid-in-glass
90 °C	0.0731 °C	Liquid-in-glass
100 °C	0.0731 °C	Liquid-in-glass
150 °C	0.0731 °C	Liquid-in-glass
200 °C	0.0760 °C	Liquid-in-glass
250 °C	0.0760 °C	Liquid-in-glass
300 °C	0.0760 °C	Liquid-in-glass
350 °C	0.0760 °C	Liquid-in-glass
400 °C	0.0760 °C	Liquid-in-glass
450 °C	0.0760 °C	Liquid-in-glass
500 °C	0.0760 °C	Liquid-in-glass

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/T07

Resistance Thermometry

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0 °C	0.0089 °C	Thermistors
10 °C	0.0089 °C	Thermistors
20 °C	0.0089 °C	Thermistors
30 °C	0.0089 °C	Thermistors
40 °C	0.0089 °C	Thermistors
50 °C	0.0089 °C	Thermistors
60 °C	0.0090 °C	Thermistors
70 °C	0.0093 °C	Thermistors
80 °C	0.0103 °C	Thermistors
90 °C	0.0137 °C	Thermistors
100 °C	0.0226 °C	Thermistors
TPW	0.004	PRT
Tin FP	0.005	PRT
Zinc FP	0.007	PRT

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.

NVLAP LAB CODE 105004-0

U.S. ARMY PRIMARY STANDARDS LABORATORY

Attn: AMSAM-TMD-S

Redstone Arsenal, AL 35898-5000

Contact: Mr. Larry W. Tarr

Phone: 256-876-8417

Fax: 256-876-6014

E-Mail: ltarr@redstone.army.mil

URL: http://tmdehome.redstone.army.mil/apsl/

Accreditation Valid Through: December 31, 2000

ELECTROMAGNETICS/DC-LOW FREQUENCY

NVLAP Code: 20/E06

DC Volts

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0 - 10 volts	0.04 ppm	Josephson Array System

TIME AND FREQUENCY

NVLAP Code: 20/F01

Frequency

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0.1 MHz	1×10^{-12}	NIST FMS System
1 MHz	1×10^{-12}	NIST FMS System
5 MHz	1×10^{-12}	NIST FMS System
10 MHz	1×10^{-12}	NIST FMS System

IONIZING RADIATION

NVLAP Code: 20/I04

Radioactive Sources

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0 to 1×10^6 Bq	5%	Large Area Sources, ²³⁸ Pu, ²³⁹ Pu

ELECTROMAGNETICS/RF MICROWAVE

NVLAP Code: 20/R12

RF/Microwave Bolometer Units

<i>Frequency</i>	<i>Calibration Factor</i>	
0.0001 to 18 GHz	0.7 to 2.0%	Coaxial, Type N Connector
7 to 10 GHz	2.0%	H Band (WR-112) Waveguide
8.2 to 12.4 GHz	1.8%	X Band WR-90) Waveguide
12.4 to 18.0 GHz	2.0%	Ku Band (WR-62) Waveguide

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Frequency</i>	<i>Calibration Factor</i>	
18.0 to 26.5 GHz	2.5%	K Band (WR-42) Waveguide
26.5 to 40.0 GHz	2.5%	Ka Band (WR-28) Waveguide
43.0 to 45.0 GHz	4.0%	Q Band (WR-22) Waveguide
58.0 to 62.0 GHz	3.0%	V Band (WR-15) Waveguide
93.0 to 96.0 GHz	4.0%	W Band (WR-10) Waveguide

THERMODYNAMICS*NVLAP Code:* 20/T07

Resistance Thermometry

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0.01 °C	0.001 °C	Triple Point of Water
-189.3442 to -38.8344 °C	0.002 °C	Triple Point of Argon & Mercury
29.7646 °C	0.002 °C	Melting Point of Gallium
231.928 to 419.527 °C	0.002 °C	Freeze Point of Tin & Zinc

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.

NVLAP LAB CODE 105007-0

STATE OF VIRGINIA METROLOGY LAB

1 North 14th Street, Room 025

Richmond, VA 23219-3691

Contact: Mr. Michael J. Kramer

Phone: 804-786-0479

Fax: 804-371-0351

Accreditation Valid Through: September 30, 2000

DIMENSIONAL

NVLAP Code: 20/D13

Survey Rods and Tapes

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0 to 25 ft	0.0015 inches	Metal Tapes (Bench Method)
25 to 50 ft	0.003 inches	Metal Tapes (Bench Method)
50 to 75 ft	0.0045 inches	Metal Tapes (Bench Method)
75 to 100 ft	0.006 inches	Metal Tapes (Bench Method)
0 to 25 ft	0.003 inches	Steel Tapes (Tape to Tape)
25 to 50 ft	0.006 inches	Steel Tapes (Tape to Tape)
50 to 75 ft	0.009 inches	Steel Tapes (Tape to Tape)
75 to 100 ft	0.012 inches	Steel Tapes (Tape to Tape)

TIME AND FREQUENCY

NVLAP Code: 20/F01

Frequency

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
1000 to 6000 Hz	0.047 mph	Tuning forks at frequencies used in law enforcement converted to miles per hour (mph)

MECHANICAL

NVLAP Code: 20/M08

Mass

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
500 kg	4567 mg	Tolerance Test
300 kg	4567 mg	Tolerance Test
200 kg	2755 mg	Tolerance Test

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
100 kg	2755 mg	Tolerance Test
50 kg	278.9 mg	Tolerance Test
30 kg	277.9 mg	Tolerance Test
25 kg	277.5 mg	Tolerance Test
20 kg	277.4 mg	Tolerance Test
10 kg	277.1 mg	Tolerance Test
5 kg	277.2 mg	Tolerance Test
3 kg	277.2 mg	Tolerance Test
2 kg	1.56 mg	Tolerance Test
1 kg	0.576 mg	Tolerance Test
500 g	0.267 mg	Tolerance Test
300 g	0.266 mg	Tolerance Test
200 g	0.266 mg	Tolerance Test
100 g	0.033 mg	Tolerance Test
50 g	0.028 mg	Tolerance Test
30 g	0.027 mg	Tolerance Test
20 g	0.026 mg	Tolerance Test
10 g	0.014 mg	Tolerance Test
5 g	0.009 mg	Tolerance Test
3 g	0.008 mg	Tolerance Test
2 g	0.008 mg	Tolerance Test
1 g	0.007 mg	Tolerance Test
500 mg	0.0048 mg	Tolerance Test
300 mg	0.0048 mg	Tolerance Test
200 mg	0.0047 mg	Tolerance Test
100 mg	0.0047 mg	Tolerance Test
50 mg	0.0047 mg	Tolerance Test
30 mg	0.0047 mg	Tolerance Test
20 mg	0.0047 mg	Tolerance Test
10 mg	0.0047 mg	Tolerance Test
5 mg	0.0047 mg	Tolerance Test
3 mg	0.0047 mg	Tolerance Test
2 mg	0.0047 mg	Tolerance Test
1 mg	0.0047 mg	Tolerance Test

NVLAP Code: 20/M12

Volume and Density

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
1.0 gill	0.002 gill	Volume Transfer
0.5 pint	0.001 pint	Volume Transfer
1.0 pint	0.0005 pint	Volume Transfer
1.0 quart	0.0002 quart	Volume Transfer
0.5 gallon	0.0002 gallon	Volume Transfer
1.0 gallon	0.00016 gallon	Volume Transfer
50 mL	0.13 mL	Volume Transfer
100 mL	0.26 mL	Volume Transfer
200 mL	0.26 mL	Volume Transfer
500 mL	0.26 mL	Volume Transfer
1 Liter	0.0003 Liter	Volume Transfer
2 Liter	0.0003 Liter	Volume Transfer
5 Liter	0.0003 Liter	Volume Transfer
5 gallon	0.0034 gallon	Volume Transfer
100 gallon	0.05 gallon	Volume Transfer
> 100 gallon	0.05 gallon or 12 in ³	Volume Transfer

THERMODYNAMICS

NVLAP Code: 20/T03

Laboratory Thermometers

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0 °C to 85 °C	0.2 °C	Liquid-in-glass

1. Represents an expanded uncertainty using a coverage factor, k=2.

NVLAP LAB CODE 105013-0

HENRY TROEMNER, LLC
 201 Wolf Drive
 P.O. Box 87
 Thorofare, NJ 08086-0087
 Contact: Mr. Wilbert D. Abele
 Phone: 856-686-1600
 Fax: 856-686-1601
 E-Mail: troemner@troemner.com
 URL: <http://www.troemner.com>

Accreditation Valid Through: September 30, 2000

MECHANICAL

NVLAP Code: 20/M08

Mass

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1,2}</i>	<i>Remarks</i>
30 kg	12.41 mg	
20 kg	9.57 mg	
10 kg	1.18 mg	
5 kg	0.59 mg	
3 kg	0.36 mg	
2 kg	0.24 mg	
1 kg	0.136 mg	
500 g	0.073 mg	
300 g	0.049 mg	
200 g	0.031 mg	
100 g	0.0167 mg	
50 g	0.0084 mg	
30 g	0.0109 mg	
20 g	0.0075 mg	
10 g	0.0047 mg	
5 g	0.0025 mg	
3 g	0.0016 mg	
2 g	0.0012 mg	
1 g	0.0011 mg	
500 mg	0.0007 mg	
300 mg	0.0006 mg	
200 mg	0.0005 mg	
100 mg	0.0006 mg	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1,2}</i>	<i>Remarks</i>
50 mg	0.0004 mg	
30 mg	0.0003 mg	
20 mg	0.0007 mg	
10 mg	0.0010 mg	
5 mg	0.0007 mg	
3 mg	0.0007 mg	
2 mg	0.0007 mg	
1 mg	0.0004 mg	
1000 kg	10.34 g	Class III
500 kg	5.03 g	Class III
200 kg	3.26 g	Class III
100 kg	1.64 g	Class III
50 kg	0.087 g	Class III
30 kg	0.072 g	Class III
25 kg	0.066 g	Class III
20 kg	0.057 g	Class III
10 kg	0.024 g	Class III
5 kg	18.30 mg	Class III
3 kg	16.77 mg	Class III
2 kg	11.52 mg	Class III
1 kg	10.09 mg	Class III
500 g	10.02 mg	Class III
300 g	10.01 mg	Class III
3000 lb	16.791 g	Class III
2500 lb	13.551 g	Class III
2000 lb	10.312 g	Class III
1000 lb	5.178 g	Class III
500 lb	3.841 g	Class III
100 lb	0.088 g	Class III
50 lb	0.054 g	Class III
30 lb	0.046 g	Class III
25 lb	0.035 g	Class III
20 lb	0.029 g	Class III
10 lb	0.018 g	Class III

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1,2}</i>	<i>Remarks</i>
5 lb	10.572 mg	Class III
3 lb	10.127 mg	Class III
2 lb	10.093 mg	Class III
1 lb	10.019 mg	Class III
0.5 lb	10.005 mg	Class III

NVLAP Code: 20/M12

Volume - Pipettes

<i>Test Volume in μl^{note 4}</i>	<i>Best Uncertainty (\pm)in μl^{note 1,3}</i>	<i>Remarks</i>
0.2	0.0477	
0.5	0.0422	
1.0	0.0469	
2.5	0.0860	
5.0	0.0983	
10	0.32	
50	0.52	
100	0.45	
500	0.90	
1000	2.18	
2500	18.75	

1. Represents expanded uncertainty using a coverage factor, $k=2$.
2. Approximate value. Actual value determined by the test statistics.
3. Uncertainties at specified test volumes may be greater depending on the range of the unit under test.
4. It is recommended that adjustable volume pipettes not be used below 10% of capacity.

NVLAP LAB CODE 105014-0

SOUTHERN CALIFORNIA EDISON COMPANY

7300 Fenwick Lane
Westminster, CA 92683
Contact: Mr. Jack Burdick
Phone: 714-895-0422
Fax: 714-895-0686
E-Mail: burdicjj@sce.com

Accreditation Valid Through: March 31, 2000

DIMENSIONAL

NVLAP Code: 20/D03

Gage Blocks

<i>Range</i>	<i>Best Uncertainty (\pm)</i> ^{note 1 & 2}	<i>Remarks</i>
thru 1 in	3.0 μ in	Direct Comparison
> 1.0 thru 6.0 in	3.0 μ in + 1 μ in/in	Direct Comparison
7.0 in	7.0 μ in	Direct Comparison
8.0 in	7.0 μ in	Direct Comparison
10.0 in	7.0 μ in	Direct Comparison
12.0 in	7.0 μ in	Direct Comparison
16.0 in	10.0 μ in	Direct Comparison
20.0 in	10.0 μ in	Direct Comparison

MECHANICAL

NVLAP Code: 20/M08

Mass

<i>Range</i>	<i>Best Uncertainty (\pm)</i> ^{note 1 & 2}
30 kg	42.1 mg
20 kg	21.6 mg
10 kg	4.6 mg
5 kg	2.5 mg
2 kg	1.8 mg
1 kg	0.245 mg
500 g	0.129 mg
200 g	0.058 mg
100 g	0.035 mg
50 g	0.0231 mg
20 g	0.0142 mg
10 g	0.0128 mg

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)</i> ^{<i>note 1 & 2</i>}	<i>Remarks</i>
5 g	0.0081 mg	
2 g	0.0033 mg	
1 g	0.0029 mg	
500 mg	0.0016 mg	
200 mg	0.0018 mg	
100 mg	0.0007 mg	
50 mg	0.0017 mg	
20 mg	0.0008 mg	
10 mg	0.0006 mg	
5 mg	0.0007 mg	
2 mg	0.0009 mg	
1 mg	0.0005 mg	

ELECTROMAGNETICS - DC/LOW FREQUENCY*NVLAP Code:* 20/E06

DC Voltage

<i>Range</i>	<i>Best Uncertainty (\pm)</i> ^{<i>note 1 & 2</i>}	<i>Remarks</i>
10.00 V	0.28 ppm	Reference Cells
1.018 V	0.20 ppm	
1.000 V	0.46 ppm	
100 mV	2.6 ppm	Meters and Multifunction Calibrators
1.0 V	1.1 ppm	
10.0 V	1.0 ppm	
100.0 V	1.1 ppm	
1000.0 V	1.2 ppm	

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.
 2. Approximate value. Actual value determined by the test statistics.

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 105016-0

FLUKE CORPORATION PRIMARY STANDARDS LABORATORY
6920 Seaway Boulevard, M/S 169G
P.O. Box 9090
Everett, WA 98206-9090
Contact: Mr. David Deaver
Phone: 425-356-6434
Fax: 425-356-5649
E-Mail: deaver@tc.fluke.com
URL: http://www.fluke.com/service/acc_usa.htm

Accreditation Valid Through: June 30, 2000

ELECTROMAGNETICS - DC/LOW FREQUENCY

NVLAP Code: 20/E01

AC/DC Difference for Low Frequency Voltage

*Best Uncertainty (±) in ppm^{note 1}
Frequency in Hertz*

<i>Range</i>	<i>Level</i>	<i>10</i>	<i>20</i>	<i>40</i>	<i>100</i>	<i>1k</i>	<i>10k</i>	<i>20k</i>	<i>50k</i>	<i>100k</i>	<i>300k</i>	<i>500k</i>	<i>800k</i>	<i>1M</i>
22 mV	2 mV	320	890	610	900	320	760	1050	330	1110	1230	2020	2520	2900
22 mV	6 mV	220	260	130	120	190	150	130	310	510	700	900	330	370
22 mV	10 mV	90	220	70	160	230	110	120	190	330	220	630	350	380
22 mV	20 mV	80	65	60	60	60	60	60	160	260	350	500	330	360
220 mV	20 mV	110	110	76	67	60	60	66	140	240	280	400	450	580
220 mV	60 mV	75	80	57	45	32	33	38	60	120	230	280	330	370
220 mV	100 mV	35	70	17	41	32	18	22	40	70	140	150	210	190
220 mV	200 mV	35	25	17	17	17	17	17	28	60	100	110	190	190
700 mV	200 mV	35	55	23	30	27	17	23	23	60	110	140	210	190
700 mV	600 mV	20	68	17	7	16	6	7	10	10	80	80	80	80
2.2 V	0.6 V	20	43	24	10	8	10	9	18	10	100	100	100	80
2.2 V	1 V	120	35	14	8	11	11	6	25	10	80	100	100	80
2.2 V	2 V	20	16	21	7	6	6	6	16	10	95	100	80	80
7 V	2 V	25	37	26	18	14	14	14	26	12	100	110	100	100
7 V	3 V	85	36	25	17	15	15	16	40	43	95	100	100	100
7 V	6 V	25	17	15	8	6	7	7	22	15	100	100	80	80
22 V	6 V	115	35	27	8	9	18	15	25	15	80	80	130	130
22 V	10 V	20	42	13	8	7	7	8	10	15	80	100	100	100
22 V	20 V	20	20	16	8	7	7	7	10	15	100	110	80	80
70 V	20 V	30	41	24	19	12	10	16	35	50	130			
70 V	30 V	80	36	24	18	19	17	22	40	56	100			

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

<i>Range</i>	<i>Level</i>	<i>10</i>	<i>20</i>	<i>40</i>	<i>100</i>	<i>1k</i>	<i>10k</i>	<i>20k</i>	<i>50k</i>	<i>100k</i>	<i>300k</i>	<i>500k</i>	<i>800k</i>	<i>1M</i>
70 V	60 V	25	20	17	10	10	13	10	40	20	80			
220 V	60 V	120	40	19	17	17	18	30	40	50	120			
220 V	100 V	140	45	19	12	10	10	10	40	20				
220 V	200 V	25	25	15	14	11	11	11	40	25				
1000 V	200 V	160	45	37	18	15	18	20	20	35				
1000 V	600 V	180	55	30	20	15	15	15	23	45				
1000 V	1000 V	55	25	20	19	18	18	19	26	50				

NVLAP Code: 20/E01

AC/DC Difference for High Frequency Thermal Converters

*Best Uncertainty (\pm) in Percent^{note 1}
Frequency in Hertz*

<i>Range</i>	<i>2 M</i>	<i>10 M</i>	<i>20 M</i>	<i>30 M</i>	<i>50 M</i>	<i>100 M</i>
0.5 V		0.1	0.2	0.2	0.5	1.0
1 V		0.1	0.2	0.2	0.5	1.0
2 V		0.08	0.16	0.16	0.4	0.8
3 V	0.08	0.1	0.16	0.2	0.5	1.0
5 V		0.1	0.2	0.2	0.5	1.0
10 V		0.1	0.2	0.2	0.5	1.0
20 V		0.1	0.15	0.2	0.5	1.0
30 V		0.08	0.16	0.16	0.4	0.8
50 V		0.08	0.16	0.16	0.4	0.8

NVLAP Code: 20/E01

AC/DC Difference for Low Frequency Thermal Current Converters and Shunts

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

<i>Range</i>	<i>10</i>	<i>20</i>	<i>40</i>	<i>400</i>	<i>1 k</i>	<i>5 k</i>	<i>10 k</i>	<i>20 k</i>	<i>50 k</i>	<i>100 k</i>
10 mA	200	80	80	80	80	80	80	80	120	200
20 mA	200	80	50	80	50	80	80	80	120	200
30 mA	200		80	80	80	80	80	80	120	200
50 mA				80				80	120	200
0.1 A	200	80	80	80	80	80	80	80	120	200

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>									
	<i>Frequency in Hertz</i>									
	<i>10</i>	<i>20</i>	<i>40</i>	<i>400</i>	<i>1 k</i>	<i>5 k</i>	<i>10 k</i>	<i>20 k</i>	<i>50 k</i>	<i>100 k</i>
0.2 A	200	80	50	80	50	80	80	80	120	200
0.3 A	200		80	80	80	80	80	80	120	200
0.5 A				80				80	120	200
1.0 A	200		80	80	80	80	80	80	120	200
2.0 A	200	80	80	80	80	80	80	80	120	200
3.0 A	200		80	80	80	80	80	80	120	200
5.0 A				80				80	120	200
10.0 A	200	140	80	80	80	110	110	120	200	
20.0 A				110				110	200	

NVLAP Code: 20/E02

AC Current

For Calibrators or DMMs

<i>Current</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>						
	<i>Frequency in Hertz</i>						
	<i>10</i>	<i>20</i>	<i>40</i>	<i>400</i>	<i>1 k</i>	<i>5 k</i>	<i>10 k</i>
19 μ A	250	200	200	200	200	250	250
100 μ A	160	90	70	70	70	150	200
190 μ A	150	85	57	60	55	150	200
1 mA	150	80	50	50	50	80	100
1.9 mA	150	80	50	50	41	70	90
10 mA	260	90	85	85	85	85	100
19 mA	260	85	51	85	51	85	100
100 mA	260	90	85	85	85	85	100
190 mA	260	85	51	85	51	85	100
1.0 A			85	85	85	100	150
1.9 A			85	85	85	100	150
10 A			85	115	85	120	150

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E02

AC Current

AC/DC Difference of Y5020 Shunt

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

<i>Current</i>	<i>50</i>	<i>100</i>	<i>300</i>	<i>1 k</i>	<i>3 k</i>	<i>4 k</i>	<i>5 k</i>
10 A	70	70	70	70	150	150	150

NVLAP Code: 20/E02

AC Current

5500A Console

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

<i>Range</i>	<i>10</i>	<i>45</i>	<i>65</i>	<i>500</i>	<i>1 k</i>	<i>5 k</i>	<i>10k</i>
33 μ A					180		600
190 μ A		70			80		470
329 μ A	80	60			80	150	330
330 μ A					160	180	
1.9 mA					60		100
3.29 mA	80	60			60	80	90
3.3 mA					140	150	
19 mA					60		90
32.9 mA	130	65			65	80	90
33 mA					85	90	
190 mA					60		90
329 mA	130	65			65	80	90
330 mA					85	100	
2.19 A	130	70			70	100	
2.2 A				100	100		
11 A		80	80	80	80		

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E02

AC Current

At Factory Annex - Multifunction Calibrators Similar to Fluke 5720A

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

<i>Range</i>	<i>40</i>	<i>1 k</i>	<i>10 k</i>
19 μ A		210	1050
190 μ A	53	53	260
1.9 mA		46	260
19 mA		53	260
190 mA	43	53	260
1.9 A	90	90	1000

NVLAP Code: 20/E02

AC Current

At Factory Annex - Multiproduct Calibrators Similar to Fluke 5500A

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

<i>Range</i>	<i>10</i>	<i>45</i>	<i>65</i>	<i>500</i>	<i>1 k</i>	<i>5 k</i>	<i>10k</i>
33 μ A					1400		2200
190 μ A		270			360		1600
329 μ A	380	220			270	560	1600
330 μ A					270	390	
1.9 mA					170		750
3.29 mA	320	140			140	260	730
3.3 mA					260	390	
19 mA					150		750
32.9 mA	350	140			140	260	740
33 mA					260	390	
190 mA					170		750
329 mA	350	140			140	250	740
330 mA					270		1300
2.19 A	410	150			210		1200
2.2 A				300	550		
11 A	110		120	160	430		

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E02

AC Current

5520A Console

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

<i>Range</i>	<i>10</i>	<i>45</i>	<i>65</i>	<i>500</i>	<i>1 k</i>	<i>5 k</i>	<i>10 k</i>	<i>30 k</i>
33 μ A					130		220	400
190 μ A		60			60		160	350
329 μ A	80	60			60	100	120	250
330 μ A					90	150		300
1.9 mA					50		85	140
3.29 mA	70	55			55	75	85	140
3.3 mA					70	100		150
19 mA					55		70	150
32.9 mA	115	62			62	65	70	150
33 mA					85	90		175
190 mA					55		70	150
329 mA	125	62			62	65	70	150
330 mA					90	100	150	
1.09 A	125	73			73	150	500	
2.99 A	125	72			72	150	500	
3.3 A				150	150	1100		
11 A		80	80	80	80	200		
20 A		100	100	100	130	200		

AC Current Factory Annex 5520A Test Console

Frequency in Hertz

<i>Range</i>	<i>10</i>	<i>45</i>	<i>65</i>	<i>500</i>	<i>1 k</i>	<i>5 k</i>	<i>10 k</i>	<i>30 k</i>
33 μ A					300		700	1300
190 μ A		200			200		600	800
329 μ A	200	140			140	200	400	700
330 μ A					180	300		600
1.9 mA					180		300	300
3.29 mA	200	140			140	200	200	300
3.3 mA					180	200		400

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>10</i>	<i>45</i>	<i>65</i>	<i>500</i>	<i>1 k</i>	<i>5 k</i>	<i>10 k</i>	<i>30 k</i>
19 mA					150		200	300
32.9 mA	200	130			130	140	140	200
33 mA					200	200		300
190 mA					160		200	300
329 mA	200	140			140	140	140	300
330 mA					180	500	1400	
1.09 A	140	100			100	200	1000	
2.99 A	140	100			100	220	900	
3.3 A				200	140	2700		
11 A		140	140	140	140	800		
20 A		140	140	140	200	800		

NVLAP Code: 20/E02

AC Current

5725A Console

<i>Range(±)</i>	<i>Frequency</i>	<i>Best Uncertainty (±) in ppm^{note 1}</i>
2.5 A	100 Hz	140
2.5 A	1 kHz	95
2.5 A	5 kHz	150
2.5 A	10 kHz	150
11 A	100 Hz	40
11 A	1 kHz	95
11 A	5 kHz	150
11 A	10 kHz	150

Factory Annex, 5725A Console

2.5 A	100 Hz	150
2.5 A	1 kHz	140
2.5 A	5 kHz	270
2.5 A	10 kHz	400
11 A	100 Hz	150
11 A	1 kHz	140
11 A	5 kHz	270
11 A	10 kHz	400

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E05

DC Resistance

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
0.01 to <0.1	10	Guildline Bridge
0.1 to <1	.5	Guildline Bridge
1 to <11	0.3	Guildline Bridge
11 to <110	0.35	Guildline Bridge
110 to <190	0.45	Guildline Bridge
190 to <11 k	0.4	Guildline Bridge
11 k to <19 k	0.45	Guildline Bridge
19 k to <110 k	0.4	Guildline Bridge
110 k to <1.1 M	1.2	Guildline Bridge
1	0.5	Low Ohm System
10	0.6	Low Ohm System
100	0.75	Low Ohm System
1 k	0.6	Low Ohm System
10 k	0.75	Low Ohm System

NVLAP Code: 20/E05

DC Resistance

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
1	12	5700A Console
1.9	10	5700A Console
10	5	5700A Console
19	4	5700A Console
100	3	5700A Console
190	2	5700A Console
1 k	2	5700A Console
1.9 k	2	5700A Console
10 k	0.5	5700A Console
19 k	1	5700A Console
100 k	2	5700A Console
190 k	2.5	5700A Console
1 M	3	5700A Console
1.9 M	3.5	5700A Console
3 M	4	5700A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
10 M	4.5	5700A Console
19 M	6	5700A Console
30 M	15	5700A Console
100 M	25	5700A Console
300 M	60	5700A Console

NVLAP Code: 20/E05
DC Resistance

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
0	100	5500A Console
2.0	55	5500A Console
10.9	25	5500A Console
11.9	25	5500A Console
19	70	5500A Console
30	70	5500A Console
33	40	5500A Console
109	21	5500A Console
119	17	5500A Console
190	13	5500A Console
300	12	5500A Console
330	11	5500A Console
1.09 k	10	5500A Console
1.19 k	10	5500A Console
1.9 k	13	5500A Console
3 k	12	5500A Console
3.3 k	11	5500A Console
10.9 k	10	5500A Console
11.9 k	10	5500A Console
19 k	12	5500A Console
30 k	12	5500A Console
33 k	11	5500A Console
109 k	10	5500A Console
119 k	10	5500A Console
190 k	24	5500A Console
300 k	20	5500A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
330 k	20	5500A Console
1.09 M	16	5500A Console
1.19 M	15	5500A Console
1.9 M	8	5500A Console
3 M	8	5500A Console
3.3 M	85	5500A Console
10.9 M	62	5500A Console
11.9 M	61	5500A Console
19 M	30	5500A Console
30 M	30	5500A Console
33 M	550	5500A Console
109 M	525	5500A Console
119 M	525	5500A Console
290 M	100	5500A Console

NVLAP Code: 20/E05

DC Resistance

At Factory Annex - Multifunction Calibrators Similar to Fluke 5720A

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
1	24.0	5720A Console
1.9	20.0	5720A Console
10	10.0	5720A Console
19	8.4	5720A Console
100	3.2	5720A Console
190	2.6	5720A Console
1 k	3.0	5720A Console
1.9 k	2.5	5720A Console
10 k	2.0	5720A Console
19 k	2.2	5720A Console
100 k	2.2	5720A Console
190 k	2.4	5720A Console
1 M	4.0	5720A Console
1.9 M	4.7	5720A Console
10 M	8.0	5720A Console
19 M	10.5	5720A Console
100 M	35.5	5720A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E05

DC Resistance

At Factory Annex - Multifunction Calibrators Similar to Fluke 5500A

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
2	100	5500A Console
10.9	40	5500A Console
11.9	40	5500A Console
19	90	5500A Console
30	90	5500A Console
33	50	5500A Console
109	40	5500A Console
119	20	5500A Console
190	20	5500A Console
300	20	5500A Console
330	15	5500A Console
1.1 k	15	5500A Console
1.2 k	15	5500A Console
1.9 k	15	5500A Console
3 k	15	5500A Console
3.3 k	15	5500A Console
10.9 k	15	5500A Console
11.9 k	15	5500A Console
19 k	15	5500A Console
30 k	15	5500A Console
33 k	15	5500A Console
109 k	15	5500A Console
119 k	15	5500A Console
190 k	25	5500A Console
300 k	25	5500A Console
330 k	25	5500A Console
1.1 M	25	5500A Console
1.2 M	25	5500A Console
1.9 M	25	5500A Console
3.0 M	25	5500A Console
3.3 M	100	5500A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
10.9 M	100	5500A Console
11.9 M	100	5500A Console
19 M	100	5500A Console
30 M	100	5500A Console
33 M	800	5500A Console
109 M	800	5500A Console
119 M	800	5500A Console
290 M	800	5500A Console

NVLAP Code: 20/E05

DC Resistance

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
0	20 μ ohms	5520A Console
2	8.5	5520A Console
10.9	2.5	5520A Console
11.9	2.5	5520A Console
19	2.5	5520A Console
30	2.8	5520A Console
33	2.5	5520A Console
109	2	5520A Console
119	2	5520A Console
190	2	5520A Console
300	2.5	5520A Console
330	2.5	5520A Console
1.09 k	2	5520A Console
1.19 k	2	5520A Console
1.9 k	2	5520A Console
3 k	2.5	5520A Console
3.3 k	3.0	5520A Console
10.9 k	2.5	5520A Console
11.9 k	2.5	5520A Console
19 k	2.5	5520A Console
30 k	3	5520A Console
33 k	3	5520A Console
109 k	3	5520A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
119 k	3	5520A Console
190 k	3	5520A Console
300 k	3.5	5520A Console
330 k	3.5	5520A Console
1.09 M	4.5	5520A Console
1.19 M	4.5	5520A Console
1.9 M	5	5520A Console
3 M	6	5520A Console
3.3 M	6	5520A Console
10.9 M	8	5520A Console
11.9 M	8	5520A Console
19 M	20	5520A Console
30 M	30	5520A Console
33 M	30	5520A Console
109 M	70	5520A Console
119 M	70	5520A Console
290 M	200	5520A Console
400 M	200	5520A Console
640 M	600	5520A Console
1.09 G	1000	5520A Console
2 to 30	25	Factory Annex, 5520A Console
33 to 109	12	Factory Annex, 5520A Console
119 to 1.19 M	7	Factory Annex, 5520A Console
1.9 M to 11.9 M	12	Factory Annex, 5520A Console
19 M	25	Factory Annex, 5520A Console
30 M	75	Factory Annex, 5520A Console
33 M	75	Factory Annex, 5520A Console
109 M	120	Factory Annex, 5520A Console
119 M	150	Factory Annex, 5520A Console
290 M	550	Factory Annex, 5520A Console
400 M	800	Factory Annex, 5520A Console
640 M	1500	Factory Annex, 5520A Console
1090 M	2500	Factory Annex, 5520A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E05

DC Current

<i>Range</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
to 19 μ A	10	Calibrators or DMMs
100 μ A to 190 μ A	4	Calibrators or DMMs
1.0 mA to 1.9 mA	4	Calibrators or DMMs
10 mA to 19 mA	9	Calibrators or DMMs
100 mA to 190 mA	10	Calibrators or DMMs
1.0 A	11	Calibrators or DMMs
1.9 A	10	Calibrators or DMMs
10 A	22	Calibrators or DMMs

NVLAP Code: 20/E05

DC Current

<i>Range (\pm) in Amperes</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
0	3 (nA)	5500A Console
190 μ	8	5500A Console
1.9 m	7	5500A Console
3.29 m	7	5500A Console
19 m	7	5500A Console
32.9 m	7	5500A Console
190 m	8	5500A Console
329 m	8	5500A Console
2.19 m	14	5500A Console
11	30	5500A Console

NVLAP Code: 20/E05

DC Current

At Factory Annex - Multifunction Calibrators Similar to Fluke 5720A

<i>Range</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
19 μ A	100	5720A Console
190 μ A	28	5720A Console
-190 μ A	16	5720A Console
\pm 1.9 mA	8	5720A Console
\pm 19 mA	12	5720A Console
100 mA	12	5720A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
± 190 mA	12	5720A Console
1 A	19	5720A Console
± 1.9 A	16	5720A Console

NVLAP Code: 20/E05

DC Current

At Factory Annex - Multifunction Calibrators Similar to Fluke 5500A

<i>Range (\pm) Amperes</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
190 μ	58	5500A Console
1.9 m	32	5500A Console
3.3 m	29	5500A Console
19 m	21	5500A Console
32.9 m	20	5500A Console
190 m	42	5500A Console
329 m	40	5500A Console
2.29	40	5500A Console
11	65	5500A Console

NVLAP Code: 20/E05

DC Current

<i>Range (\pm) Amperes</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
0	100 (pA)	5520A Console
190 μ	10	5520A Console
329 μ	10	5520A Console
1.9 m	9	5520A Console
3.29 m	8	5520A Console
19 m	9	5520A Console
32.9 m	8	5520A Console
190 m	9	5520A Console
329 m	8	5520A Console
1.09	19	5520A Console
2.99	18	5520A Console
11	30	5520A Console
20	65	5520A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range (±) Amperes</i>	<i>Best Uncertainty (±) in ppm^{note 1}</i>	<i>Remarks</i>
190 μ to 329 μ	25	Factory Annex, 5520A Console
1.9 m to 3.29 m	17	Factory Annex, 5520A Console
19 m to 32.9 m	18	Factory Annex, 5520A Console
190 m to 329 m	34	Factory Annex, 5520A Console
1.09	35	Factory Annex, 5520A Console
2.99	55	Factory Annex, 5520A Console
11 to 20	90	Factory Annex, 5520A Console

NVLAP Code: 20/E05

DC Current

<i>Range (±)</i>	<i>Best Uncertainty (±) in ppm^{note 1}</i>	<i>Remarks</i>
0.0	100 μ A	5725A Console
190 mA	18	5725A Console
1 A	60	5725A Console
2.5 A	60	5725A Console
11 A	60	5725A Console
0.0	120 μ A	Factory Annex, 5725A Console
190 mA	20	Factory Annex, 5725A Console
1 A	100	Factory Annex, 5725A Console
11 A	70	Factory Annex, 5725A Console

NVLAP Code: 20/E06

DC Voltage

<i>Range</i>	<i>Best Uncertainty (±)^{note 1}</i>	<i>Remarks</i>
Reference Standards		
10.00 V	0.02 ppm ^{note 2}	Direct Comparison - in lab
10.00 V	0.06 ppm ^{note 2}	Direct Comparison - remote location

Well Isolated DC Sources or Voltmeters

200 μ V to 10 V	(0.02 + 0.1E ^{0.2}) μ V ^{note 2, 3}	Direct against J Array
> 10 V to 100 V	0.5 ppm ^{note 2}	J Array & Divider
> 100 V to 1000 V	0.7 ppm ^{note 2}	J Array & Divider

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

Calibrators or Digital Voltmeters

0.1 V	3.0 ppm	Transfer Method
1.0 V	0.8 ppm	Transfer Method
10.0 V	0.3 ppm	Transfer Method
100.0 V	0.5 ppm	Transfer Method
1000.0 V	0.8 ppm	Transfer Method

NVLAP Code: 20/E06

DC Voltage

<i>Range (±) in Volts</i>	<i>Best Uncertainty (±) in ppm^{note 1}</i>	<i>Remarks</i>
0	0.5	5500A Console
0.329	7.0	5500A Console
3.29	5.5	5500A Console
32.9	8.0	5500A Console
50	8.0	5500A Console
329	8.0	5500A Console
334	8.5	5500A Console
900	7.0	5500A Console
1020	7.0	5500A Console

NVLAP Code: 20/E06

DC Voltage

At Factory Annex - Multifunction Calibrators Similar to Fluke 5720A

<i>Range</i>	<i>Best Uncertainty (±) in ppm^{note 1}</i>	<i>Remarks</i>
100 mV	5.0	5720A Console
-100 mV	6.5	5720A Console
±1.0 V	1.2	5720A Console
±10.0 V	0.7	5720A Console
±100.0 V	1.0	5720A Console
±1000.0 V	1.4	5720A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E06

DC Voltage

At Factory Annex - Multiproduct Calibrators Similar to Fluke 5500A

<i>Range (±) in Volts</i>	<i>Best Uncertainty (±) in ppm^{note 1}</i>	<i>Remarks</i>
0.329	8	5500A Console
3.29	7	5500A Console
32.9	10	5500A Console
50	9	5500A Console
329	9	5500A Console
334	10	5500A Console
900	9	5500A Console
1020	9	5500A Console

NVLAP Code: 20/E06

DC Voltage

<i>Range (±) in Volts</i>	<i>Best Uncertainty (±) in ppm^{note 1}</i>	<i>Remarks</i>
0	0.15 μ V	5520A Console
0.329	2	5520A Console
1	1.5	5520A Console
3.29	16	5520A Console
7	6	5520A Console
10	1	5520A Console
32.9	1.2	5520A Console
50	2	5520A Console
329	2.2	5520A Console
334	2.2	5520A Console
900	2.5	5520A Console
1020	2.2	5520A Console
0 to 32.9	2.5	Factory Annex, 5520A Console
33 to 1020	4.5	Factory Annex, 5520A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E09

LF AC Voltage

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

Range	10	20	40	100	1k	10k	20k	50k	100k	300k	500k	800k	1 M
2 mV	500	970	720	980	500	850	1120	500	1170	1280	2060	2550	2910
6 mV	260	290	190	180	230	200	180	330	520	700	900	360	390
10 mV	130	230	110	180	250	140	140	210	340	240	640	360	390
20 mV	90	80	75	75	75	75	75	170	260	350	500	330	360
60 mV	80	80	60	48	37	38	43	62	120	230	270	330	370
100 mV	35	70	21	44	34	22	26	41	70	140	140	210	180
200 mV	35	23	19	19	19	19	19	30	60	100	110	180	190
600 mV	20	65	17	10	16	9	10	12	12	80	80	80	80
1 V	120	31	14	10	13	13	10	22	10	80	100	100	80
2 V	20	15	20	9	8	8	8	15	10	90	100	80	80
6 V	25	16	15	9	8	9	8	21	11	100	100	80	80
10 V	20	40	13	10	9	9	10	10	15	80	100	100	90
20 V	20	17	16	9	9	9	9	10	15	100	110	80	80
60 V	25	19	18	11	11	14	11	35	20	80			
100 V	130	45	20	14	13	12	10	40	20				
200 V	25	22	16	15	12	12	13	40	20				
600 V	180	55	31	22	16	17	18	25	45				
1000 V	55	22	21	20	19	19	19	30	50				

NVLAP Code: 20/E09

AC Voltage

Multiproduct Calibrators Similar to Fluke 5500A

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

Range in Volts	9.5	10	45	1 k	5 k	8 k	10 k	18 k	20 k	50 k	90 k	100 k	450 k	500 k
0.01			430	430	430		430							
0.03	1000	120	70	65			65		65	150		260	470	
0.3	1000	50	30	30	35		25		25	35		70		180
3.0	1000	30	25	20	25		20		20	35		35	130	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

Range in Volts	9.5	10	45	1 k	5 k	8 k	10 k	18 k	20 k	50 k	90 k	100 k	450 k	500 k
30	1000	35	27	20			20		25	45	65			
300			36	25			25	25						
1000			35	35	35	35								

NVLAP Code: 20/E09

AC Voltage

At Factory Annex - Multifunction Calibrators Similar to Fluke 5720A

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

Range	40	50	1 k	20 k	100 k	300 k	500 k	1 M
1.9 mV			740	840				
19 mV	90		90	90	270	420		1100
190 mV	30		60	80	130	240		740
600 mV	30		20	20	50	130		500
1 V	20		10	10	50	100		400
2 V			20	20				400
3 V	30		20	20	50	180		670
10 V	20		10	10	40	140		400
20 V			10	10				400
30 V	30		20	20	60	330	1700	
100 V	20		20	20	50			
200 V	25		20		60			
500 V		30	20					
1100 V		25	30					

NVLAP Code: 20/E09

AC Voltage

At Factory Annex - Multiproduct Calibrators Similar to Fluke 5500A

*Best Uncertainty (\pm) in ppm^{note 1}
Frequency in Hertz*

Range	10	45	1 k	5 k	10 k	20 k	50 k	100 k	500 k
0.03 V	300	180	180		180	180	250	350	900
0.3 V	180	27	27		27	27	50	75	380
3.0 V	180	27	27		27	27	50	75	380

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

Range	10	45	1 k	5 k	10 k	20 k	50 k	100 k	500 k
30 V	160	30	30		30	30	55	100	
300 V		50	40		40	60			
1000 V		50	50	50	50 ^{note 4}				

NVLAP Code: 20/E09

AC Voltage

5520A Console

Best Uncertainty (\pm) in ppm^{note 1}

Frequency in Hertz

Range	9.5	10	45	1 k	5 k	10 k	18 k	20 k	30 k	50 k	90 k	100 k	450 k	500 k
0.003			250			250								
0.01			350	350	350	500			1050					
0.03	1000	110	64	60		60		60		140		250	450	
0.3	1000	45	25	29		21		25		31		70		150
3.0	1000	30	25	16		16		16		30		35	120	
5.0	1000	60	50	40	40	40								
30	1000	35	26	18		18		20		40	60			
200												110		
300			36	22		21	23			40				
1000			30	30	30	30 ^{note 4}								

NVLAP Code: 20/E09

AC Voltage

Factory Annex 5520A Test Console

Best Uncertainty (\pm) in ppm^{note 1}

Frequency in Hertz

Voltage Alternating	9.5	10	45	1 k	10 k ^{note 8}	20 k ^{note 7}	50 k	100 k ^{note 6}	450 k ^{note 5}
0.003 V			400		400				
0.03 V	1100	120	70	70	70	70	150	300	600
0.033 V			120		120				
0.3 V	1100	50	35	32	32	32	50	90	250
0.33 V			80		80				
3 V	1100	50	30	30	30	30	50	50	200
3.3 V			85		85				
30 V	1100	50	30	30	30	30	50	100	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Voltage Alternating</i>	<i>9.5</i>	<i>10</i>	<i>45</i>	<i>1 k</i>	<i>10 k^{note 8}</i>	<i>20 k^{note 7}</i>	<i>50 k</i>	<i>100 k^{note 6}</i>	<i>450 k^{note 5}</i>
33 V			70		80				
300 V			40	30	30	40	50	300	
330 V			50		40				
1000 V			40	40	40	40			
1020 V			40		40				

NVLAP Code: 20/E09

AC Voltage

5725A Console

*Best Uncertainty (±) in ppm^{note 1}
Frequency in Hertz*

<i>Range</i>	<i>40</i>	<i>1 k</i>	<i>20 k</i>	<i>50 k</i>	<i>100 k</i>
300 V	38	21	30	61	170
600 V	32	21	30	61	170
1000 V	23	21	30		

Factory Annex, 5725A Console

300 V	39	25	33	70	200
600 V	32	25	33	70	200
1000 V	23	25	42		

NVLAP Code: 20/E10

Capacitance

Three Wire

*Best Uncertainty (±)^{note 1}
Frequency in Hertz*

<i>Range</i>	<i>1 k</i>	<i>10 k</i>
1.0 pF to 1.1111 μF	0.01 % + (0.002 % * C μF) f ² kHz	0.01 % + (0.002 % * C μF) f ² kHz
1.0 pF to 0.001 μF	0.01 %	0.01 %
0.001 μF to 0.01 μF	0.01 %	0.012 %
0.01 μF to 0.05 μF	0.01 %	0.02 %
0.05 μF to 0.1 μF	0.01 %	0.03 %
0.1 μF to 0.5 μF	0.011 %	0.11 %

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>1 k</i>	<i>10 k</i>
0.5 μ F to 1.11 μ F	0.012%	0.21%
Two Wire		
10 pF to 1.1111 μ F	$0.01 + (0.002 * C \text{ } \mu\text{F})f^2 \text{ kHz} + \frac{5 * 10^{-17}}{C \text{ } \mu\text{F}} \%$	$0.01 + (0.002 * C \text{ } \mu\text{F})f^2 \text{ kHz} + \frac{5 * 10^{-17}}{C \text{ } \mu\text{F}} \%$
10 pF	5%	5%
100 pF	0.5%	0.5%
1000 pF	0.06%	0.06%
0.01 μ F	0.015%	0.017%
0.1 μ F to 1 μ F	0.015%	0.017%

NVLAP Code: 20/E10

Capacitance

<i>Range</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
350 pF @ 1000 Hz	2500	5500A Console
480 pF @ 1000 Hz	2100	5500A Console
600 pF @ 1000 Hz	1300	5500A Console
1 nF @ 1000 Hz	1000	5500A Console
2 nF @ 1000 Hz	800	5500A Console
7 nF @ 1000 Hz	710	5500A Console
10.9 nF @ 1000 Hz	700	5500A Console
20 nF @ 1000 Hz	700	5500A Console
70 nF @ 1000 Hz	690	5500A Console
200 nF @ 1000 Hz	690	5500A Console
300 nF @ 1000 Hz	680	5500A Console
700 nF @ 100 Hz	680	5500A Console
2 μ F @ 100 Hz	690	5500A Console
3 μ F @ 100 Hz	690	5500A Console
7 μ F @ 100 Hz	690	5500A Console
10.9 μ F @ 100 Hz	690	5500A Console
20 μ F @ 100 Hz	700	5500A Console
30 μ F @ 100 Hz	710	5500A Console
70 μ F @ 100 Hz	740	5500A Console
200 μ F @ 100 Hz	1400	5500A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
300 μ F @ 100 Hz	1500	5500A Console
330 μ F @ 50 Hz	1600	5500A Console
1.1 mF @ 50 Hz	2400	5500A Console

NVLAP Code: 20/E10

Capacitance

At Factory Annex - Multiproduct Calibrators Similar to Fluke 5500A

<i>Range</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
350 pF @ 1000 Hz	3200	5500A Console
480 pF @ 1000 Hz	3000	5500A Console
600 pF @ 1000 Hz	1600	5500A Console
1 nF @ 1000 Hz	1600	5500A Console
2 nF @ 1000 Hz	1200	5500A Console
7 nF @ 1000 Hz	1200	5500A Console
10.9 nF @ 1000 Hz	1000	5500A Console
20 nF @ 1000 Hz	1000	5500A Console
70 nF @ 1000 Hz	820	5500A Console
200 nF @ 1000 Hz	820	5500A Console
300 nF @ 1000 Hz	820	5500A Console
700 nF @ 100 Hz	820	5500A Console
2 μ F @ 100 Hz	850	5500A Console
3 μ F @ 100 Hz	850	5500A Console
7 μ F @ 100 Hz	850	5500A Console
10.9 μ F @ 100 Hz	850	5500A Console
20 μ F @ 100 Hz	850	5500A Console
30 μ F @ 100 Hz	860	5500A Console
70 μ F @ 100 Hz	900	5500A Console
200 μ F @ 100 Hz	1500	5500A Console
300 μ F @ 100 Hz	1550	5500A Console
330 μ F @ 50 Hz	1700	5500A Console
1.1 mF @ 50 Hz	2400	5500A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E10

Capacitance

<i>Range</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>		<i>Remarks</i>
190 pF @ 5000 Hz		2000	5520A Console
350 pF @ 1000 Hz		1800	5520A Console
480 pF @ 1000 Hz		1650	5520A Console
600 pF @ 1000 Hz		1000	5520A Console
1 nF @ 1000 Hz		900	5520A Console
2 nF @ 1000 Hz		770	5520A Console
7 nF @ 1000 Hz		700	5520A Console
10.9 nF @ 1000 Hz		690	5520A Console
20 nF @ 1000 Hz		685	5520A Console
70 nF @ 1000 Hz		680	5520A Console
109 nF @ 1000 Hz		680	5520A Console
200 nF @ 1000 Hz		680	5520A Console
300 nF @ 1000 Hz		680	5520A Console
700 nF @ 100 Hz		680	5520A Console
1.09 μ F @ 100 Hz		680	5520A Console
2 μ F @ 100 Hz		680	5520A Console
3 μ F @ 100 Hz		680	5520A Console
7 μ F @ 100 Hz		680	5520A Console
10.9 μ F @ 100 Hz		685	5520A Console
20 μ F @ 100 Hz		700	5520A Console
30 μ F @ 100 Hz		700	5520A Console
70 μ F @ 50 Hz		1280	5520A Console
109 μ F @ 50 Hz		1320	5520A Console

<i>Range</i>	<i>10 Second Charge Current</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>		<i>Remarks</i>
200 μ F	60 μ A		250	5520A Console
300 μ F	90 μ A		250	5520A Console
330 μ F	100 μ A		250	5520A Console
700 μ F	200 μ A		250	5520A Console
1.09 mF	300 μ A		250	5520A Console
1.1 mF	300 μ A		250	5520A Console
2 mF	600 μ A		250	5520A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>10 Second Charge Current</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
3 mF	900 μ A	250	5520A Console
3.3 mF	1 mA	250	5520A Console
10.9 mF	3 mA	250	5520A Console
20 mF	6 mA	250	5520A Console
30 mF	9 mA	250	5520A Console
33 mF	10 mA	250	5520A Console
110 mF	30 mA	250	5520A Console

<i>Range</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
190 pF @ 5 kHz	15000	Factory Annex, 5520A Console
350 pF @ 1 kHz	7800	Factory Annex, 5520A Console
480 pF @ 1 kHz	4200	Factory Annex, 5520A Console
600 pF @ 1 kHz	3200	Factory Annex, 5520A Console
1000 pF @ 1 kHz	2000	Factory Annex, 5520A Console
2000 pF @ 1 kHz	1000	Factory Annex, 5520A Console
7000 pF @ 1 kHz	700	Factory Annex, 5520A Console
.7 μ F to 30 μ F @ 100 Hz	700	Factory Annex, 5520A Console
70 μ F to 109 μ F @ 50 Hz	1300	Factory Annex, 5520A Console
200 μ F to 110 mF ^{note 9}	300	Factory Annex, 5520A Console

NVLAP Code: 20/E15

Phase

5500A Console

Best Uncertainty (\pm) in degrees^{note 1}
Frequency in Hertz

<i>Range Phase</i> <i>(degrees)</i>	<i>60</i>	<i>65</i>	<i>400</i>	<i>1 k</i>	<i>5 k</i>	<i>10 k</i>	<i>Mode</i>
0		0.02	0.02				ACV/ACC
0	0.02			0.02	0.02	0.025	ACV/ACV
60	0.02			0.02	0.02	0.025	ACV/ACV
90	0.02			0.02	0.02	0.025	ACV/ACV

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E15

Phase

At Factory Annex - Multiproduct Calibrators Similar to Fluke 5500A

<i>Range in degrees</i>	<i>Frequency in Hz</i>	<i>Best Uncertainty (\pm) in degrees^{note 1}</i>
0	60 to 65	0.025
0	400 to 10 k	0.075
60	60	0.025
60	400 to 10 k	0.075
90	60	0.025
90	400 to 10 k	0.075

5520 A Console

<i>Range Phase (degrees)</i>	<i>Reference Volts</i>	<i>Signal Amps</i>	<i>Frequency Hz</i>	<i>Best Uncertainty (\pm) in degrees^{note 1}</i>	<i>Remarks</i>
0	0.03	0.3	65	0.015	ACV/ACC
0	0.03	0.3	1 k	0.025	ACV/ACC
0	0.03	0.3	30 k	0.5	ACV/ACC
0	0.2	2	65	0.015	ACV/ACC
0	0.05	5	65	0.022	ACV/ACC
0	0.05	5	400	0.025	ACV/ACC
60	0.03	0.3	65	0.015	ACV/ACC
60	0.2	2	65	0.015	ACV/ACC
60	0.2	20	65	0.015	ACV/ACC
60	0.2	20	400	0.030	ACV/ACC
0	3.3	0.3	65	0.016	ACV/ACC
0	3.3	2	65	0.020	ACV/ACC
0	3.3	5	65	0.016	ACV/ACC
0	3.3	5	400	0.030	ACV/ACC
90	3.3	0.3	65	0.020	ACV/ACC
90	3.3	2	65	0.018	ACV/ACC
90	3.3	20	65	0.018	ACV/ACC
90	3.3	20	400	0.030	ACV/ACC
0	33	0.3	65	0.020	ACV/ACC
0	33	2	65	0.018	ACV/ACC
0	33	5	65	0.016	ACV/ACC

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range Phase (degrees)</i>	<i>Reference Volts</i>	<i>Signal Amps</i>	<i>Frequency Hz</i>	<i>Best Uncertainty (\pm) in degrees^{note 1}</i>	<i>Remarks</i>
0	33	5	400	0.030	ACV/ACC
90	33	0.3	65	0.018	ACV/ACC
90	33	2	65	0.022	ACV/ACC
90	33	20	65	0.023	ACV/ACC
90	33	20	400	0.030	ACV/ACC
0, 60, 90	3	3	65	0.015	ACV/ACV
0, 60, 90	3	3	400	0.020	ACV/ACV
0, 60, 90	3	3	1 k	0.020	ACV/ACV
0, 60, 90	3	3	5 k	0.025	ACV/ACV
0, 60, 90	3	3	10 k	0.025	ACV/ACV
0, 60, 90	3	3	30 k	0.300	ACV/ACV
90	30	3	65	0.015	ACV/ACV
90	50	3	65	0.016	ACV/ACV

Phase

Factory Annex, 5520A Console

<i>Range in degrees</i>	<i>Frequency in Hz</i>	<i>Best Uncertainty (\pm) in degrees^{note 1}</i>
0 to 90	65 to 1 k	0.025
0 to 90	5 k to 10 k	0.1
0 to 90	30 k	0.5

TIME AND FREQUENCY

NVLAP Code: 20/F01

Frequency

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
10 MHz	1 mHz	GPS Console
<i>Range in Hz</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
119 to 120	1	5500A Console
1000	1	5500A Console
100000	1	5500A Console

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/F01

Frequency

At Factory Annex Multiproduct Calibrators Similar to Fluke 5500A

<i>Range in Hz</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
119	5	5500A Console
120	5	5500A Console
1000	5	5500A Console
100000	5	5500A Console

NVLAP Code: 20/F01

Frequency

<i>Range in Hz</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
119	0.10	5520A Console
120	0.10	5520A Console
1000	0.10	5520A Console
100000	0.10	5520A Console
119 to 100000 k	0.8	Factory Annex, 5520A Console

THERMODYNAMICS

NVLAP Code: 20/T03

Temperature

<i>Range in °C</i>	<i>Best Uncertainty (\pm) in mK^{note 1}</i>	<i>Remarks</i>
-40 to -197	11	
-1 to -40	8	
-1 to 1	5	
0.01	4.5	
1 to 150	10	
150 to 350	15	

NVLAP Code: 20/T06

Thermocouple Temperature

<i>Range in °C</i>	<i>Best Uncertainty (\pm) in °C^{note 1}</i>	<i>Remarks</i>
Simulated TC Temperature with UUT Sourcing, 5500 Console Measuring		
0	0.03	10 μ V/C Linear Mode, Voltage Simulates Temperature
100	0.03	10 μ V/C Linear Mode, Voltage Simulates Temperature

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range in °C</i>	<i>Best Uncertainty (±) in °C^{note 1}</i>	<i>Remarks</i>
-100	0.03	10 µV/C Linear Mode, Voltage Simulates Temperature
1000	0.04	10 µV/C Linear Mode, Voltage Simulates Temperature
-1000	0.04	10 µV/C Linear Mode, Voltage Simulates Temperature
10000	0.08	10 µV/C Linear Mode, Voltage Simulates Temperature
-10000	0.08	10 µV/C Linear Mode, Voltage Simulates Temperature

Simulated TC Temperature with UUT Measurement, 5500A Console Sourcing

0	0.05	10 µV/C Linear Mode, Voltage Simulates Temperature
10000	0.12	10 µV/C Linear Mode, Voltage Simulates Temperature
-10000	0.12	10 µV/C Linear Mode, Voltage Simulates Temperature
30000	0.24	10 µV/C Linear Mode, Voltage Simulates Temperature
-30000	0.24	10 µV/C Linear Mode, Voltage Simulates Temperature

Thermocouple Temperature

23	0.018	Type K 5500A & 5520A Consoles
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NVLAP Code: 20/T08

Simulated Temperature

At Factory Annex - Multiproduct Calibrators Similar to Fluke 5500A

<i>Range in °C</i>	<i>Function</i>	<i>Best Uncertainty (±) in °C^{note 1}</i>
0 to ±1000	Source	0.1
±10000	Source	0.16
0	Measure	0.1
23	Measure	0.05
±10000	Measure	0.2
±30000	Measure	0.4

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

Thermocouple Temperature

Simulated TC Temperature with UUT Measurement, 5520A Console Measuring

<i>Range in °C</i>	<i>Best Uncertainty (±) in °C^{note 1}</i>	<i>Remarks</i>
0	0.02	10 µV/C Linear Mode, Voltage Simulates Temperature
100	0.02	10 µV/C Linear Mode, Voltage Simulates Temperature
-100	0.02	10 µV/C Linear Mode, Voltage Simulates Temperature
1000	0.025	10 µV/C Linear Mode, Voltage Simulates Temperature
-1000	0.025	10 µV/C Linear Mode, Voltage Simulates Temperature
10000	0.07	10 µV/C Linear Mode, Voltage Simulates Temperature
-10000	0.07	10 µV/C Linear Mode, Voltage Simulates Temperature

Simulated TC Temperature with UUT Measurement, 5520A Console Sourcing

0	0.02	10 µV/C Linear Mode, Voltage Simulates Temperature
10000	0.12	10 µV/C Linear Mode, Voltage Simulates Temperature
-10000	0.12	10 µV/C Linear Mode, Voltage Simulates Temperature
30000	0.24	10 µV/C Linear Mode, Voltage Simulates Temperature
-30000	0.24	10 µV/C Linear Mode, Voltage Simulates Temperature

Factory Annex, 5520A Console

<i>Range in °C</i>	<i>Function</i>	<i>Best Uncertainty (±) in °C^{note 1}</i>
0 to ± 1000	Source	0.06
± 10000	Source	0.1
0, 23	Measure	0.04
± 10000	Measure	0.15
± 30000	Measure	0.25

-
1. Represents an expanded uncertainty at a level of confidence of 99%; coverage factor k is determined by the test statistics.
 2. Approximate value. Actual value determined by the test statistics.
 3. E = Actual Voltage.
 4. 1000 V Limit is 8 kHz.
 5. 500 kHz @ 0.33 V.
 6. 90 kHz @ 30 V.
 7. 18 kHz @ 300 V, 8 kHz for voltage ≥ 1000 V.
 8. 5 kHz @ 1000 V.
 9. Above 200 μF the method of calibration is a charge technique with charge currents ranging from 60 μA at 200 μF to 30 mA at 110 mF.

NVLAP LAB CODE 105018-0

CDRH X-RAY CALIBRATION LABORATORY

Health X-Ray Calibration Laboratory
12720 Twinbrook Parkway HFZ-143
Rockville, MD 20857
Contact: Mr. Frank Cerra
Phone: 301-443-2536 x123
Fax: 301-443-9101
E-Mail: fxc@cdrh.fda.gov
URL: <http://www.fda.gov/cdrh>

Accreditation Valid Through: December 31, 2000

This facility has demonstrated compliance with the NVLAP Criteria for Calibration Laboratories under the field of Ionizing Radiation for the following:

Procedures/Instruments

Radiation Types

Calibration of Survey Instruments

X-ray Beam Codes M30, M50, L80, L100, and M100 over the Exposure Rate Range 2 mR/s to 100 mR/s, and the H50 Beam Code over the range 0.5 mR/h to 4 mR/s, with total uncertainty in the reference field value of ± 5 percent.

Calibration of Instruments for Diagnostic Level

X-ray Beam Codes M20, M30, M50, L80, L100, and M100 over the Exposure Rate Range 2 mR/s to 100 mR/s, with total uncertainty in the reference field value of ± 3 percent.

Calibration of Reference-Class Instruments

X-ray Beam Codes M20, M30, M50, L80, L100, and M100 over the Exposure Rate Range 2 mR/s to 100 mR/s, with total uncertainty in the reference field value of ± 3 percent.

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 105020-0

PACIFIC NORTHWEST NATIONAL LABORATORY/BATTELLE

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URL: <http://www.pnl.gov/eshs/>

Accreditation Valid Through: December 31, 2000

This facility has demonstrated compliance with the NVLAP Criteria for Calibration Laboratories under the field of Ionizing Radiation for the following:

<i>Calibration Category</i>	<i>Radiation Type or Beam Code</i>	<i>Nominal Intensity Range^{note 3}</i>	<i>Uncertainty of Reference Field (\pm)^{note 1,2}</i>
CALIBRATION OF SURVEY INSTRUMENTS			
Gamma	²⁴¹ Am	0.125 R/h	5.2%
	¹³⁷ Cs	0.1 to 250 R/h	1.5%
	⁶⁰ Co	4 to 60,000 R/h	1.5%
X-ray	M30	3 to 500 R/h	1.5%
	M50	4 to 600 R/h	1.5%
	M60	3 to 450 R/h	1.5%
	M100	3 to 500 R/h	1.5%
	M150	4 to 550 R/h	1.5%
	M200	4 to 650 R/h	1.5%
	S60	1 to 175 R/h	1.5%
	S75	5 to 700 R/h	1.5%
	H40	0.02 to 4 R/h	1.5%
	H50	0.05 to 10 R/h	1.5%
	H100	0.02 to 3 R/h	1.5%
	H150	1 to 15 R/h	1.5%
	H200	0.9 to 9 R/h	1.5%
	H250	0.9 to 9 R/h	1.5%
	H300	0.6 to 3 R/h	1.5%
Beta	²⁰⁴ Tl	0.9 rad/h	4.4%
	⁹⁰ Sr/ ⁹⁰ Y	0.4 to 19 rad/h	4.0%

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Calibration Category</i>	<i>Radiation Type or Beam Code</i>	<i>Nominal Intensity Range^{note 3}</i>	<i>Uncertainty of Reference Field (\pm)^{note 1,2}</i>
Neutron	²⁵² Cf Bare	0.014 to 4.8 rem/h	7.6%
	²⁵² Cf Moderated	0.004 to 1.1 rem/h	21.4%

<i>Calibration Category</i>	<i>Radiation Type or Beam Code</i>	<i>Nominal Range^{note 3}</i>	<i>Uncertainty of Delivered Quantity (\pm)^{note 1,2}</i>
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IRRADIATION OF PERSONNEL DOSIMETERS

Gamma	²⁴¹ Am	≥ 0.002 R	5.4%
	¹³⁷ Cs	≥ 0.020 R	3.6%
	⁶⁰ Co	≥ 0.025 R	3.6%
X-ray	M30	≥ 0.025 R	3.6%
	M50	≥ 0.035 R	3.6%
	M60	≥ 0.025 R	3.6%
	M100	≥ 0.025 R	3.6%
	M150	≥ 0.035 R	3.6%
	M200	≥ 0.035 R	3.6%
	S60	≥ 0.010 R	3.6%
	S75	≥ 0.040 R	3.6%
	H40	≥ 0.0002 R	3.6%
	H50	≥ 0.0005 R	3.6%
	H100	≥ 0.0002 R	3.6%
	H150	≥ 0.008 R	3.6%
	H200	≥ 0.008 R	3.6%
	H250	≥ 0.008 R	3.6%
	H300	≥ 0.005 R	3.6%
Beta	²⁰⁴ Tl	≥ 0.015 rad	11.8%
	⁹⁰ Sr/ ⁹⁰ Y	≥ 0.007 rad	5.4%
Neutron	²⁵² Cf Bare	≥ 0.001 rem	8.0%
	²⁵² Cf Moderated	≥ 0.002 rem	22.4%

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

CALIBRATION OF REFERENCE-CLASS INSTRUMENTS

<i>Calibration Category</i>	<i>Radiation Type or Beam Code</i>	<i>Nominal Intensity Range^{note 3}</i>	<i>Uncertainty of Reference Field (\pm)^{note 1,2}</i>
Gamma	¹³⁷ Cs	0.1 to 250 R/h	1.5%
	⁶⁰ Co	4 to 60,000 R/h	1.5%
X-ray	M30	3 to 500 R/h	1.5%
	M50	4 to 600 R/h	1.5%
	M60	3 to 450 R/h	1.5%
	M100	3 to 500 R/h	1.5%
	M150	4 to 550 R/h	1.5%
	M200	4 to 650 R/h	1.5%
	S60	1 to 175 R/h	1.5%
	S75	5 to 700 R/h	1.5%
	H40	0.02 to 4 R/h	1.5%
	H50	0.05 to 10 R/h	1.5%
	H100	0.02 to 3 R/h	1.5%
	H150	1 to 15 R/h	1.5%
	H200	0.9 to 9 R/h	1.5%
	H250	0.9 to 9 R/h	1.5%
	H300	0.6 to 3 R/h	1.5%

-
1. Values listed at the 95% confidence level.
 2. Uncertainties are valid for nominal intensity range listed.
 3. For calibration outside of the nominal intensity range shown, uncertainties would be determined commensurate with the parameters of the reference field calibration.

NVLAP LAB CODE 105023-0

INSTRON FORCE CALIBRATION LABORATORY

100 Royall Street

Canton, MA 02021

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URL: <http://www.instron.com>

Accreditation Valid Through: September 30, 2000

<i>NVLAP Code/ Parameters</i>	<i>Range</i>	<i>Best Uncertainty (\pm)^{notes 1,2,3}</i>	<i>Remarks</i>
MECHANICAL			
20/M06			
Force			
	Applied Force in Pounds		
	0.1 to 130000	0.005%	Primary Standard
	130000 to 240000	0.005%	Secondary Standard

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.
 2. Uncertainty of the voltage ratio is <0.1 microvolt per volt.
 3. Uncertainty of the measured value is determined by the statistics of the test and the artifact tested but are typically better than $\pm 0.05\%$ for class AA instruments, $\pm 0.25\%$ for class A instruments and $\pm 0.1\%$ for class A1 instruments.

NVLAP LAB CODE 200012-0

IPS CORPORATION
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Accreditation Valid Through: December 31, 2000

ELECTROMAGNETICS - RF Microwave

NVLAP Code: 20/R08

Microwave Antenna Parameters

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
Dipole Antenna (such as the VHA9103/UHA9105)		
30 to 80 MHz (tuned 80 MHz)	1.1 dB	Horizontal Antenna Factor
30 to 300 MHz	1.1 dB	Horizontal Antenna Factor
300 to 1000 MHz	1.3 dB	Horizontal Antenna Factor
Biconical Antenna (such as the BBA9106)		
30 to 300 MHz	1.2 dB	Horizontal Antenna Factor
Log-Periodic Antenna (such as the UHALP9107)		
300 to 1000 MHz	1.2 dB	Horizontal Antenna Factor
Bi-log Antenna (such as the CBL6112B)		
30 to 300 MHz	1.4 dB	Horizontal Antenna Factor
300 to 1000 MHz	1.4 dB	Horizontal Antenna Factor
LISN		
0.1 to 30 MHz	0.5 dB	Impedance
0.1 to 30 MHz	0.5 dB	Insertion Loss
CDN		
0.1 to 10 MHz	1.2 dB	Impedance
10 to 30 MHz	0.7 dB	Impedance
30 to 100 MHz	0.6 dB	Impedance
100 to 230 MHz	0.8 dB	Impedance
0.1 to 10 MHz	0.5 dB	Insertion Loss
10 to 230 MHz	0.5 dB	Insertion Loss

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
RF Amplifier		
10 to 1000 MHz	1.4 dB	Gain
ESD Simulators		
0 to 15 kV	0.6 dB	Amplitude
0 to 15 kV	46.9 pS	Time at 500 pS/div
EFT/Burst		
0 to 2 kV	0.7 dB	Amplitude
1 to 2 kV	46.9 pS	Time at 500 pS/div
EM Clamp		
0.1 to 230 MHz	0.5 dB	Insertion Loss
Current Probe		
0.1 to 230 MHz	0.5 dB	Insertion Loss

1. Represents an expanded uncertainty using a coverage factor, $k=2$.

NVLAP LAB CODE 200029-0

GE INDUSTRIAL SYSTEMS

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Accreditation Valid Through: December 31, 2000

ELECTROMAGNETICS/DC-LOW FREQUENCY

NVLAP Code: 20/E05

DC Resistance

<i>Value in ohms</i>	<i>Best Uncertainty in ppm (\pm)^{note 1}</i>	<i>Remarks</i>
0.1	1.0	
1	1.0	
10	1.0	
100	1.0	
1 k	1.5	
10 k	1.5	
100 k	4.0	
1 M	4.6	
10 M	6.2	
100 M	13.4	

NVLAP Code: 20/E06

DC Voltage

<i>Range in Volts</i>	<i>Best Uncertainty in ppm (\pm)^{note 1}</i>	<i>Remarks</i>
0.1	3	Zener Reference Diodes, Standard Cells, High Level MM's and Calibrators
1.0	1.5	Zener Reference Diodes, Standard Cells, High Level MM's and Calibrators
10.0	1.2	Zener Reference Diodes, Standard Cells, High Level MM's and Calibrators
100.0	1.5	Zener Reference Diodes, Standard Cells, High Level MM's and Calibrators
1000.0	2.0	Zener Reference Diodes, Standard Cells, High Level MM's and Calibrators

THERMODYNAMICS

NVLAP Code: 20/T05

Pressure

<i>Range</i>	<i>Uncertainty (\pm) of reading^{note 1}</i>	<i>Remarks</i>
0.2 to 1000 psia	36 ppm	Inert Gas
0.2 to 1000 psi	36 ppm	Inert Gas
15 to 10000 psi	0.02 %	Inert Gas
15 to 15000 psi	0.02 %	Fluid

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.

NVLAP LAB CODE 200038-0

WEBBER GAGE DIVISION/L.S. STARRETT CO.

24500 Detroit Road
Cleveland, OH 44145
Contact: Mr. David Friedel
Phone: 440-835-0001
Fax: 440-892-9555

Accreditation Valid Through: December 31, 2000

DIMENSIONAL

NVLAP Code: 20/D03

Gage Blocks

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1,2,3}</i>	<i>Remarks</i>
Standard Size Gage Blocks		
thru 1.0 in	1.3 μ in	Master Grade Calibration
thru 25 mm	0.035 μ m	Master Grade Calibration
> 1.0 thru 4.0 in	(0.8 + 0.5L) μ in	Master Grade Calibration
> 25 thru 100 mm	(0.02 + 0.5L) μ m	Master Grade Calibration
> 4.0 thru 20.0 in	(3.5 + 0.25L) μ in	Master Grade Calibration
> 100 thru 500.0 mm	(0.09 + 0.25L) μ m	Master Grade Calibration
thru 4.0 in	(1.4 + 0.6L) μ in ^{note 4}	Commercial Grade Calibration
thru 100 mm	(0.035 + 0.6L) μ m ^{note 5}	Commercial Grade Calibration
> 4.0 thru 20.0 in	(6.0 + 0.3L) μ in	Commercial Grade Calibration
> 100 thru 500 mm	(0.15 + 0.3L) μ m	Commercial Grade Calibration
Non Standard Size Gage Blocks		
to 1.0 in	2.2 μ in	Master Grade Calibration
to 25 mm	0.055 μ m	Master Grade Calibration
> 1.0 thru 4.6 in	(1.6 + 0.6L) μ in	Master Grade Calibration
> 25 thru 117 mm	(0.04 + 0.6L) μ m	Master Grade Calibration
> 4.6 thru 20.0 in	(6.0 + 0.35L) μ in	Master Grade Calibration
> 117 thru 500 mm	(0.15 + 0.35L) μ m	Master Grade Calibration

1. Represents an expanded uncertainty using a coverage factor, k=2.
2. Approximate value. Actual value determined by the test statistics.
3. L is in inches or meters as appropriate.
4. Uncertainty not less than 2.0 μ in.
5. Uncertainty not less than 0.05 μ m.

NVLAP LAB CODE 200106-0

DENVER INSTRUMENT CO. WEIGHT LAB

6542 Fig Street
Arvada, CO 80004-1042
Contact: Mr. Mark Fritz
Phone: 303-431-7255
Fax: 303-423-4831

Accreditation Valid Through: December 31, 2000

MECHANICAL

NVLAP Code: 20/M08

Mass

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
5 kg	3.8 mg	
4 kg	2.4 mg	
3 kg	2.4 mg	
2 kg	0.37 mg	
1 kg	0.33 mg	
500 g	0.080 mg	
400 g	0.075 mg	
300 g	0.071 mg	
200 g	0.056 mg	
160 g	0.055 mg	
150 g	0.055 mg	
100 g	0.029 mg	
50 g	0.0215 mg	
40 g	0.0216 mg	
30 g	0.0216 mg	
20 g	0.0208 mg	
10 g	0.0127 mg	
5 g	0.0111 mg	
3 g	0.0112 mg	
2 g	0.0108 mg	
1 g	0.0108 mg	
500 mg	0.0030 mg	
300 mg	0.0031 mg	
200 mg	0.0030 mg	
100 mg	0.0029 mg	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
50 mg	0.0028 mg	
30 mg	0.0029 mg	
20 mg	0.0028 mg	
10 mg	0.0026 mg	
5 mg	0.0026 mg	
3 mg	0.0027 mg	
2 mg	0.0026 mg	
1 mg	0.0026 mg	

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.

NVLAP LAB CODE 200106-0

DENVER INSTRUMENT CO. WEIGHT LAB

6542 Fig Street
Arvada, CO 80004-1042
Contact: Mr. Mark Fritz
Phone: 303-431-7255
Fax: 303-423-4831

Accreditation Valid Through: December 31, 2000

MECHANICAL

NVLAP Code: 20/M08

Mass

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
5 kg	3.8 mg	
4 kg	2.4 mg	
3 kg	2.4 mg	
2 kg	0.37 mg	
1 kg	0.33 mg	
500 g	0.080 mg	
400 g	0.075 mg	
300 g	0.071 mg	
200 g	0.056 mg	
160 g	0.055 mg	
150 g	0.055 mg	
100 g	0.029 mg	
50 g	0.0215 mg	
40 g	0.0216 mg	
30 g	0.0216 mg	
20 g	0.0208 mg	
10 g	0.0127 mg	
5 g	0.0111 mg	
3 g	0.0112 mg	
2 g	0.0108 mg	
1 g	0.0108 mg	
500 mg	0.0030 mg	
300 mg	0.0031 mg	
200 mg	0.0030 mg	
100 mg	0.0029 mg	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
50 mg	0.0028 mg	
30 mg	0.0029 mg	
20 mg	0.0028 mg	
10 mg	0.0026 mg	
5 mg	0.0026 mg	
3 mg	0.0027 mg	
2 mg	0.0026 mg	
1 mg	0.0026 mg	

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.

NVLAP LAB CODE 200108-0

HONEYWELL FM&T METROLOGY

2000 East 95th Street
P.O. Box 419159
Kansas City, MO 64141-6159
Contact: Mr. Roger N. Burton
Phone: 816-997-5431
Fax: 816-997-3856
E-Mail: rburton@kcp.com

Accreditation Valid Through: December 31, 2000

DIMENSIONAL

NVLAP Code: 20/D01

Angle Blocks

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
up to 45 °	1.1 arc seconds	Comparison Method

Autocollimators

0 to 600 arc seconds	(0.3 arc seconds + 0.25% of angle)	Small Angle Generator
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Index Table/Polygons

0 to 360 ° (in 10 ° or 30 ° increments)	0.6 arc seconds	3 Stack Method
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Optical Comparators

Length up to 12 in	(0.0002 + 30L) in ^{note 2}	Magnifications Standard
Angle 0 to 360 °	0.1 °	Angle Blocks

NVLAP Code: 20/D03

Gage Blocks

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1, 4}</i>	<i>Remarks</i>
up to 4 in	(3.2 + .88L) μ m ^{note 2}	Comparison
>4 in to 20 in	(5.8 + .53L) μ m ^{note 2}	Comparison
up to 100 mm	(0.081 + .88L) μ m ^{note 3}	Comparison
>100 mm to 500 mm	(0.161 + .41L) μ m ^{note 3}	Comparison

NVLAP Code: 20/D04

Laser Frequency/Wavelength

<i>Laser Type</i>	<i>Best Uncertainty (\pm)</i>	<i>Remarks</i>
HeNe	0.05 ppm	Comparison

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/D05

Length

Stage Micrometers (Chrome on Glass)

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0 to 2 in	18 μ in	Laser Interferometer with Laser Edge Detection

Undirectional Step Gages

0 to 24 in	(20 μ in + 1.8L) ^{note 2}	CMM with Bi-swing Probe
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Inspection Masters

0 to 2 in	Length 18 μ in	Laser Interferometer with Laser Edge Detection
> 2 to 12 in	Length 32 μ in	Laser Interferometer with Laser Edge Detection
	Perpendicularity 8 ppm	CMM with Video Probe

Magnification Scales

up to 24 in	0.0003 in	CMM with Video Probe
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Micrometer Masters

0 to 3 in	60 μ in	Single - Axis Measuring Machine
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Precision Micrometer Heads

0 to 2 in	35 μ in	Laser Interferometer
(0 to 50 mm)		

1-D Ball Plates

up to 48 in	(30 μ in + 2L) ^{note 2}	CMM Single - Axis Method
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Squares

up to 24 in by 36 in	30 μ in	CMM, Self Closing Method
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Straight Edges

up to 48 in	5 μ in	CMM, Reversal Method
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Dial Calipers

\leq 12 in	0.002 in	Gage Blocks
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INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/D07

Thread Measuring Wires

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
All 29 ° and 60 ° Wires	8.0 μ in	Direct Measurement

NVLAP Code: 20/D08

Optical Reference Planes

Optical Flats, Mirrors

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0 to 12 in	1.2 μ in	3 Flat Method
0 to 12 in	2.0 μ in	Interferometer Method
0 to 12 in	4.0 μ in	Comparison to Master

NVLAP Code: 20/D09

Roundness

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
up to 18 in Diameter	3 μ in	Roundness Machine

NVLAP Code: 20/D11

Spherical Diameter

Master Balls

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
1/16 to 1.0 in (1 to 25 mm)	9 μ in	Comparison to Master

Calibration Spheres

to 1 in (25 mm)	11 μ in Diameter	Comparison to Master
	5 μ in Sphericity	Roundness

OD Micrometers

up to 3 in	(0.0002 + L/50000) in ^{note 2}	Micrometer Master
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NVLAP Code: 20/D12

Surface Plates

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
Up to 8 ft Diagonal	(30 μ in + 2 μ in/ft ²)	Moody and Least Squares Method with Autocollimator

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/D14

Plug Gages

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0 to 1 in	6.5 μ in	Comparison to Master

Threaded Plug Gages - Pitch and Major Diameter per ASME B1.2, ASME B1.16M or ASME B1.5

up to 10 in	P.D. 0.0001 in	3 - Wire P.D. Measurement
	M.D. 0.000035 in	

Adj.-Thread Ring Gages-Functional Threads per ASME B1.2 (UN or UNR Thread Form), ASME B1.15 (UNJ Threads)

up to 10 in	P.D. 0.0002 in	Set to 'W' Thread Set Master
	M.D. 0.0001 in	

Thread Set Plugs - Pitch and Major Diameter per ASME B1.2, ASME B1.16M or ASME B1.5

up to 10 in	P.D. 0.000035 in	3 - Wire P.D. Measurement
	M.D. 0.000020 in	

NVLAP Code: 20/D15

2-D Ball Plates

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
36 in x 36 in	(30 μ in + 2.5L) ^{note 2}	CMM Single - Axial Method

NVLAP Code: 20/D16

Coordinate Measuring Machines

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
To 120 x 120 x 120 in	Axial (10 + 1.5L) μ in	Parametrical Calibration
	Planar (35 + 8.5L) μ in	
To 24 in Volumetric	Axial (35 + 4L) μ in	Step Gage
Diagonals	Planar (45 + 4L) μ in	Step Gage
	Spatial (50 + 5L) μ in	Step Gage
To 56 in Volumetric	Axial (60 + 3L) μ in	1-D Ball Plates
Diagonals	Spatial (70 + 3L) μ in	1-D Ball Plates
To 36 in Volumetric	Axial (50 + 5L) μ in	2-D Ball Plates
Diagonals	Planar (50 + 7L) μ in	2-D Ball Plates
	Spatial (50 + 9L) μ in	

TIME AND FREQUENCY

NVLAP Code: 20/F01

Frequency Dissemination

	<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
Frequency	0.1 MHz	1 part in 10^9	
Frequency	1.0 MHz	1 part in 10^9	
Frequency	5.0 MHz	1 part in 10^9	
Frequency	10.0 MHz	1 part in 10^9	

MECHANICAL

NVLAP Code: 20/M06

Force

	<i>Range</i>	<i>Best Uncertainty (\pm) in %^{note 1}</i>	<i>Remarks</i>
	5 thru 2400 lbf	0.01	of Applied Force
	> 2400 thru 100000 lbf	0.015	of Range
	> 100000 thru 300000 lbf	0.035	of Range

NVLAP Code: 20/M08

Mass

	<i>Range</i>	<i>Best Uncertainty (\pm) in mg^{note 1}</i>	<i>Method</i>
	5 kg	19.70	Direct-Reading Weighing
	3 kg	15.12	Direct-Reading Weighing
	2 kg	12.08	Direct-Reading Weighing
	1 kg	3.832	Direct-Reading Weighing
	500 g	2.168	Direct-Reading Weighing
	300 g	1.410	Direct-Reading Weighing
	200 g	1.040	Direct-Reading Weighing
	100 g	0.598	Direct-Reading Weighing
	50 g	0.4480	Direct-Reading Weighing
	30 g	0.4010	Direct-Reading Weighing
	20 g	0.1528	Direct-Reading Weighing
	10 g	0.1002	Direct-Reading Weighing
	5 g	0.0780	Direct-Reading Weighing
	3 g	0.0423	Direct-Reading Weighing
	2 g	0.0266	Direct-Reading Weighing
	1 g	0.0296	Direct-Reading Weighing
	500 mg	0.0272	Direct-Reading Weighing

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm) in mg^{note 1}</i>	<i>Method</i>
300 mg	0.0267	Direct-Reading Weighing
200 mg	0.0265	Direct-Reading Weighing
100 mg	0.0264	Direct-Reading Weighing
50 mg	0.0264	Direct-Reading Weighing
30 mg	0.0264	Direct-Reading Weighing
20 mg	0.0045	Single Substitution Comparison to Reference Weights
10 mg	0.0035	Single Substitution Comparison to Reference Weights
5 mg	0.0034	Single Substitution Comparison to Reference Weights
3 mg	0.0036	Single Substitution Comparison to Reference Weights
2 mg	0.0034	Single Substitution Comparison to Reference Weights
1 mg	0.0034	Single Substitution Comparison to Reference Weights
10 lb	19.09	Direct-Reading Weighing
8 lb	15.90	Direct-Reading Weighing
5 lb	12.43	Direct-Reading Weighing
4 lb	10.80	Direct-Reading Weighing
3 lb	10.11	Direct-Reading Weighing
2 lb	3.723	Direct-Reading Weighing
1 lb	1.899	Direct-Reading Weighing
0.5 lb	1.150	Direct-Reading Weighing
0.3 lb	0.821	Direct-Reading Weighing
0.2 lb	0.575	Direct-Reading Weighing
0.1 lb	0.460	Direct-Reading Weighing
0.05 lb	0.417	Direct-Reading Weighing
0.03 lb	0.1277	Direct-Reading Weighing
0.02 lb	0.1064	Direct-Reading Weighing
0.01 lb	0.0998	Direct-Reading Weighing
0.005 lb	0.0518	Direct-Reading Weighing
0.003 lb	0.0458	Direct-Reading Weighing
0.002 lb	0.0290	Direct-Reading Weighing
0.001 lb	0.0356	Direct-Reading Weighing

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty (\pm) in mg^{note 1}</i>	<i>Method</i>
10 oz	1.253	Direct-Reading Weighing
8 oz	1.150	Direct-Reading Weighing
6 oz	0.868	Direct-Reading Weighing
5 oz	0.865	Direct-Reading Weighing
4 oz	0.815	Direct-Reading Weighing
3 oz	0.551	Direct-Reading Weighing
2 oz	0.4850	Direct-Reading Weighing
1 oz	0.4250	Direct-Reading Weighing
1/2 oz	0.1373	Direct-Reading Weighing
1/4 oz	0.0985	Direct-Reading Weighing
1/8 oz	0.0968	Direct-Reading Weighing
1/16 oz	0.0482	Direct-Reading Weighing
1/32 oz	0.0370	Direct-Reading Weighing
1/64 oz	0.0356	Direct-Reading Weighing

NVLAP Code: 20/M11

Vibration/Acceleration

<i>Range</i>	<i>Best Uncertainty (\pm) in %^{note 1}</i>
0.3 g @ 10 thru 40 Hz	2.5
1 g @ 10 thru 100 Hz	2.5
2 g @ 10 thru 100 Hz	2.5
5 g @ 100 Hz	2.5
10 g @ 30 thru <100 Hz	2.5
10 g @ 100 thru 2000 Hz	1.8
10 g @ > 2000 thru 10000 Hz	2.5

Shock

10 thru 10000 g @ 10 thru 10000 Hz	3.5
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INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

RF MICROWAVE

NVLAP Code: 20/R01

Coaxial Air Line Standards

Air Lines (Air-Dielectric)

Connector Type	Quantity	Quantity Range	Best Uncertainty (\pm) ^{note 1} Frequency (GHz)		
			0.05 to 8.5	8.5 to 18.0	18.0 to 26.5
GR-900	Impedance	50 Ω	0.028 - 0.050 Ω	---	---
APC-7	Impedance	50 Ω	0.044 - 0.080 Ω	0.060 - 0.096 Ω	---
N	Impedance	50 Ω	0.044 - 0.080 Ω	0.060 - 0.096 Ω	---
APC-3.5	Impedance	50 Ω	0.115 - 0.165 Ω	0.125 - 0.185 Ω	0.158 - 0.200 Ω
GR-900	Electrical Length	3 to 30 cm	0.0019 - 0.0081 cm	---	---
APC-7	Electrical Length	3 to 30 cm	0.0021 - 0.028 cm	0.0021 - 0.0041 cm	---
N	Electrical Length	3 to 15 cm	0.0021 - 0.014 cm	0.0021 - 0.0028 cm	
APC-3.5	Electrical Length	5 to 15 cm	0.0026 - 0.028 cm	0.0025 - 0.0036 cm	0.0025 - 0.0032 cm

NVLAP Code: 20/R02

Coaxial/Waveguide Terminations

Reflection Coefficient (Scattering Parameter S_{ii}) on the HP8510 Vector Automatic Network Analyzer

Connector Type	Quantity	Quantity Range	Best Uncertainty (\pm) ^{note 1} Frequency (GHz)		
			0.05 to 8.5	8.5 to 18.0	18.0 to 26.5
GR-900	$ S_{ii} $	0 to 1	0.002 - 0.005	---	---
APC-7	$ S_{ii} $	0 to 1	0.0025 - 0.004	0.004 - 0.006	---
N	$ S_{ii} $	0 to 1	0.0045 - 0.018	0.012 - 0.030	---
APC-3.5	$ S_{ii} $	0 to 1	0.0045 - 0.0055	0.0055 - 0.008	0.008 - 0.009
GR-900	ARG (S_{ii})	-180 to 180°, $0 < S_{ii} < 1$	0.35 - 180°	---	---
APC-7	ARG (S_{ii})	-180 to 180°, $0 < S_{ii} < 1$	0.35 - 180°	0.50 - 180°	---
N	ARG (S_{ii})	-180 to 180°, $0 < S_{ii} < 1$	1.0 - 180°	6.50 - 180°	---
APC-3.5	ARG (S_{ii})	-180 to 180°, $0 < S_{ii} < 1$	0.40 - 180°	0.55 - 180°	1.15 - 180°

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/R02

Coaxial/Waveguide Terminations

Reflection Coefficient (Scattering Parameter S_{ii}) on HP8753 Vector Automatic Network Analyzer

Connector Type	Quantity	Quantity Range	Best Uncertainty (\pm) ^{note 1} Frequency (MHz)	
			0.30 to 100	100 to 3000
GR-900	$ S_{ii} $	0 to 1	0.004 - 0.005	0.005 - 0.035
APC-7	$ S_{ii} $	0 to 1	0.0025 - 0.0075	0.0025 - 0.0075
N	$ S_{ii} $	0 to 1	0.0045 - 0.012	0.0055 - 0.015
APC-3.5	$ S_{ii} $	0 to 1	---	0.0045 - 0.018
GR-900	ARG (S_{ii})	-180 to 180°, $0 < S_{ii} < 1$	0.50 - 180°	0.55 - 180°
APC-7	ARG (S_{ii})	-180 to 180°, $0 < S_{ii} < 1$	0.50 - 180°	0.50 - 180°
N	ARG (S_{ii})	-180 to 180°, $0 < S_{ii} < 1$	0.50 - 180°	3.0 - 180°
APC-3.5	ARG (S_{ii})	-180 to 180°, $0 < S_{ii} < 1$	---	0.50 - 180°

NVLAP Code: 20/R12

RF/Microwave Bolometer Units

Thermistor Mounts at Type N Connector

Quantity	Power Level Range	Quantity Range	Best Uncertainty (\pm) ^{note 1} Frequency	
			1 to 1000 MHz	1.0 to 8.5 GHz
Calibration Factor	-10 to 10 dB	0.9 to 1.0	0.75 - 2.3%	1.0 - 3.1%

NVLAP Code: 20/R13

RF/Microwave Attenuators

Attenuation (Scattering Parameter S_{ii}) on the HP8510 Vector Automatic Network Analyzer

Connector Type	Quantity	Quantity Range	Best Uncertainty (\pm) ^{note 1} Frequency (GHz)		
			0.05 to 8.5	8.5 to 18.0	18.0 to 26.5
APC-7	$ S_{ii} $	0 to 60 dB	0.02 - 0.50 dB	0.034 - 0.30 dB	---
APC-3.5	$ S_{ii} $	0 to 60 dB	0.02 - 0.50 dB	0.031 - 0.29 dB	0.044 - 0.37 dB

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/R13

RF/Microwave Attenuators

Attenuation (Scattering Parameter S_{ii}) on the HP8753 Vector Automatic Network Analyzer

			<i>Best Uncertainty (\pm)^{note 1}</i>
			<i>Frequency (MHz)</i>
<i>Connector Type</i>	<i>Quantity</i>	<i>Quantity Range</i>	<i>0.30 to 3000</i>
APC-7	$ S_{ii} $	0 to 60 dB	0.02 - 0.40 dB

NVLAP Code: 20/R16

Group Delay

		<i>Best Uncertainty (\pm)^{note 1}</i>
		<i>Frequency (GHz)</i>
<i>Connector Type</i>	<i>Delay (ns)</i>	<i>0.05 to 2.0</i>
GR-900, APC-7, N, APC-3.5	1 to 1200	0.005 - 0.5

NVLAP Code: 20/R17

RF/Microwave Power Meters

CW Microwave Power Meter Calibration at Type N Connector

			<i>Best Uncertainty (\pm)^{note 1}</i>	
			<i>Frequency</i>	
<i>Quantity</i>	<i>Quantity Range (dBm)</i>	<i>0.1 to 10 MHz</i>	<i>0.01 to 3.0 GHz</i>	<i>3.0 to 8.5 GHz</i>
Power	-60 to -20 dBm	---	0.11 dB	0.13 dB
Power	-20 to +20 dBm	0.16 - 0.18 dB	0.10 - 0.15 dB	0.10 - 0.16 dB

NVLAP Code: 20/R17

RF/Microwave Power Meters

Peak Power Meter Calibration at Type N Connector

		<i>Best Uncertainty (\pm)^{note 1}</i>
		<i>Frequency (GHz)</i>
<i>Quantity</i>	<i>Quantity Range (dBm)</i>	<i>1.0 to 2.0 GHz</i>
Power	-20 to +20 dBm	0.2 dB

*Power System Calibration Procedure is MW-085

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/R17

RF/Microwave Power Wattmeters

		<i>Best Uncertainty (\pm)^{note 1}</i>
<i>Quantity</i>	<i>Quantity Range (Watts)</i>	<i>Frequency</i>
		<i>2 MHz to 1.2 GHz</i>
Power	0.1 to 1.0 k	3.4%

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.
 2. L is in inches.
 3. L is in meters.
 4. Best uncertainty is for steel blades.

NVLAP LAB CODE 200115-0

BECHTEL B&W IDAHO, STANDARDS AND CALIBRATION LAB

P.O. Box 1625
Idaho Falls, ID 83415-4137
Contact: Mr. Harry J. Moody
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E-Mail: moodhj@inel.gov

Accreditation Valid Through: December 31, 2000

DIMENSIONAL

NVLAP Code: 20/D03

Gage Blocks

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>
0-4 in	3.4 - 4.5 μ in
5-8 in	4.5 - 5.9 μ in
10-12 in	6.9 - 7.8 μ in
16 in	9.8 μ in
20 in	11.8 μ in

ELECTROMAGNETICS -DC/LOW FREQUENCY

NVLAP Code: 20/E05

Resistance

<i>Range in ohms</i>	<i>Best Uncertainty (\pm)^{note 1}</i>
0.1	0.35 ppm
1.0	0.3 ppm
10.0	0.35 ppm
100	0.5 ppm
1 k	0.6 ppm
10 k	0.5 ppm
100 k	1.0 ppm
1 M	5.0 ppm

NVLAP Code: 20/E06

DC Voltage

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>
10 volt Zener Reference	0.3 ppm

TIME AND FREQUENCY

NVLAP Code: 20/F01

Frequency Dissemination

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0.1 MHz, 1 MHz, 5 MHz, 10 MHz	$1 \times 10^{-11}/24$ hours	NIST FMS System

NVLAP Code: 20/F03

Oscillator Characterization (Electronic Counters)

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0.1 MHz, 1 MHz, 5 MHz, 10 MHz	$5 \times 10^{-10}/24$ hours	NIST FMS System

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.

NVLAP LAB CODE 200123-0

LIBERTY LABS, INC.
1346 Yellowwood Road
P.O. Box 230
Kimballton, IA 51543
Contact: Mr. Michael W. Howard
Phone: 712-773-2199
Fax: 712-773-2299
E-Mail: mhoward@liberty-labs.com

Accreditation Valid Through: December 31, 2000

ELECTROMAGNETIC - RF/MICROWAVE

NVLAP Code: 20/R08

Microwave Antenna Parameters

<i>Range</i>	<i>Best Uncertainty in dB (\pm)^{note 1}</i>	<i>Remarks</i>
Early Designed Biconical Antennas (such as the EMCO 3104)		
30-60 MHz	1.7	
60-300 MHz	1.0	
New Designed Biconical Antennas (such as the EMCO 3110)		
30-90 MHz	1.2	
90-300 MHz	0.9	
Log-Periodic Antennas (such as the EMCO 3146)		
200-1000 MHz	1.0	Vertical
200-1000 MHz	1.1	Horizontal
200-1000 MHz	1.0 to 2.2	Fixed Heights
BiLog Antennas (such as the Chase CBL6111)		
20-1000 MHz	0.9	
Dipole Antennas (such as the EMCO 3121)		
30-1000 MHz	0.6	
DRWG Horn Antennas (such as the EMCO 3115)		
1-18 GHz	1.1	3 Ant. Method, OATS
1-18 GHz	1.2	Standard Field, OATS

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty in dB (\pm)^{note 1}</i>	<i>Remarks</i>
Horn Antennas (above 18 GHz)		
18-40 GHz	1.2	Standard Field, Anechoic
LISN's		
10 kHz to 100 MHz	0.4	Insertion Loss
10 kHz to 100 MHz	0.4	Impedance
Current Probes/Injection Probes		
5 Hz - 500 MHz	0.3	Insertion Loss
Absorbing Clamps		
30 to 1000 MHz	2.3	
CDN'S & 150-50 Ohm Adapters		
10 kHz to 230 MHz	0.4	Impedance & Insertion Loss
Isotropic Probes		
10 kHz-1 GHz	2.4	GTEM, Boonton MV
100 MHz - 18 GHz	2.4	GTEM, PWR Sensors
10 kHz - 1 GHz	1.3	Stripline
18-40 GHz	1.9	Standard Field
RF Pre-amps & Amps		
10 kHz to 18 GHz	0.4	GAIN Cal
Loop Antennas		
1 kHz - 30 MHz	1.1	Vacuo Junction
20 Hz - 1 kHz	1.1	Series Resistor
Rod Antennas		
100 Hz to 30 MHz	0.5	Using ECSM (Insertion Loss with Mfr's Fixture)
100 Hz to 10 kHz	1.0	Using NIST 1347
10 kHz to 30 MHz	0.9	Using NIST 1347

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Range</i>	<i>Best Uncertainty in dB (\pm)^{note 1}</i>	<i>Remarks</i>
RF Insertion Loss		
10 kHz to 18 GHz	0.4	
ESD Simulators/Surge Generators		
0 to 15 kV ESD Gun	0.3 dB	
0 to 6 kV Surge	0.3 dB	

-
1. Represents an expanded uncertainty using a coverage factor, k=2.

NVLAP LAB CODE 200154-0

COMPAQ CORPORATE METROLOGY

20555 SH 249 (MS 070110)
P.O. Box 692000 (MS 070110)
Houston, TX 77269-2000
Contact: Mr. David H. Shumway
Phone: 281-514-5787
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E-Mail: dave.shumway@compaq.com

Accreditation Valid Through: March 31, 2000

DC/LOW FREQUENCY

NVLAP Code: 20/E17

Pulse Waveform

<i>Parameter</i>	<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
Risetime (Generate)	< 20 ps	14.43 %	
Risetime (Measure)	< 1 ns to 100 ps	5.78 %	Single Shot
Impulse Spectral Amplitude			
Impulse Noise (Source)	10 kHz to 150 kHz	14.21 %	Band A
Impulse Noise (Source)	150 kHz to 30 MHz	14.21 %	Band B
Impulse Noise (Source)	30 MHz to 1 GHz	23.43 %	Band C & D
HV (Measure)	1 kV to 60 kV	0.13 %	with HVD
	1 kV to 40 kV	2.33 %	with HV Probe

TIME AND FREQUENCY

NVLAP Code: 20/F03

Oscillator Characterization

<i>Parameter</i>	<i>Nominal</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
Frequency/Period			
Frequency (Source)	10 MHz	2.82×10^{-9}	
Frequency (Measure)	10 MHz, 1 Vrms	1.34×10^{-7}	
Frequency (Comparison)	10 MHz, 1 Vrms	1.34×10^{-9}	1 second
Duty Cycle/Duration			
@ 1 s Time Interval	10 MHz, 1 Vrms	0.61 %	
@ 100 mV p-p	2 GHz	6.24 %	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Parameter</i>	<i>Nominal</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
Jitter			
@ 200 mV p-p	2 GHz	1.38%	
@ 1Vrms	10 MHz	1.71%	
Drift			
@ 100 s Time Interval	10 MHz	5.7×10^{-9}	
Spectral Purity			
Single Sideband Phase Noise (SSB)			
@ +30 to -20 dBm	10 MHz to 1300 MHz	15.10%	with receiver
@ 0 \geq -22 dBm	1 GHz	15.10%	with spectrum analyzer
Harmonic Distortion			
@ 0 dBm	0.2 Hz to 100 Hz	5.44%	
@ 0 dBm	1 GHz	15.10%	
@ -22 dBm	10 Hz to 100 kHz	29.91%	
2nd Order Harmonic/Intermodulation Distortion			
@ 0 dBm	0.24 Hz to 100 Hz	5.44%	
@ 0 dBm	1 GHz	15.10%	
AM Modulation			
AM (Source)	50 Hz to 50 kHz Rates	0.18%	
AM (Measure)	50 Hz to 50 kHz Rates	1.41%	
AM (Source)	33.33% of depth	0.12%	
FM Modulation			
FM (Source)	DC to 100 kHz Rates	0.16%	
FM (Measure)	50 Hz to 100 kHz Rates	1.72%	
FM (Source)	34 kHz Peak Deviation	0.12%	
PM Modulation			
PM (Measure)	150 kHz to 1300 MHz	4.77%	

<i>Parameter</i>	<i>Nominal</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
Spurious Content			
@ 0 dBm	0.2 Hz to 100 Hz	5.44 %	
@ 0 dBm	1 GHz	15.10 %	

RF/MICROWAVE
NVLAP Code: 20/R13

Attenuators

Relative RF Power (Attenuation-Measure)

<i>Frequency</i>	<i>Nominal</i>	<i>Best Uncertainty (\pm)^{note 1,2}</i>	<i>Remarks</i>
100 kHz to 2.6 GHz	0 dB to -20 dB	M + 0.02 dB	
100 kHz to 2.6 GHz	-20 dB to -40 dB	M + 0.03 dB	
100 kHz to 2.6 GHz	-40 dB to -60 dB	M + 0.04 dB	
100 kHz to 2.6 GHz	-60 dB to -80 dB	M + 0.05 dB	
100 kHz to 2.6 GHz	-80 dB to -100 dB	M + 0.06 dB	
100 kHz to 2.6 GHz	-100 dB to -110 dB	M + 0.12 dB	
100 kHz to 2.6 GHz	-110 dB to -120 dB	M + 0.17 dB	
2.5 GHz to 26.5 GHz	-0 dB to -10 dB	M + 0.22 dB	
2.5 GHz to 26.5 GHz	-10 dB to -20 dB	M + 0.09 dB	
2.5 GHz to 26.5 GHz	-20 dB to -30 dB	M + 0.10 dB	
2.5 GHz to 26.5 GHz	-30 dB to -40 dB	M + 0.13 dB	
2.5 GHz to 26.5 GHz	-40 dB to -50 dB	M + 0.14 dB	
2.5 GHz to 26.5 GHz	-50 dB to -60 dB	M + 0.16 dB	
2.5 GHz to 26.5 GHz	-60 dB to -70 dB	M + 0.18 dB	
2.5 GHz to 26.5 GHz	-70 dB to -80 dB	M + 0.20 dB	
2.5 GHz to 26.5 GHz	-80 dB to -90 dB	M + 0.31 dB	
2.5 GHz to 26.5 GHz	-90 dB to -100 dB	M + 0.32 dB	
2.5 GHz to 26.5 GHz	-100 dB to -110 dB	M + 0.34 dB	
2.5 GHz to 26.5 GHz	-110 dB to -120 dB	M + 0.36 dB	
30 MHz	0 dB to 50 dB	M + 0.07 dB	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Frequency</i>	<i>Nominal</i>	<i>Best Uncertainty (\pm)^{note 1,2}</i>	<i>Remarks</i>
Attenuation High Power (Generate)			
DC to 2 GHz	20 dB	M + 0.44 dB	with Narda 766-20 ATTN.
DC to 2 GHz	20 dB	M + 0.80 dB	with Narda 769-20 ATTN.
Attenuation High Voltage (Generate)			
DC to 1 GHz	20 dB	M + 0.30 dB	
DC to 2 GHz	20 dB	M + 0.64 dB	
Impedance (Source)			
DC to 18 GHz	50 ohms	1.84%	
DC to 6 GHz	50 ohms	0.61%	
DC to 3 GHz	75 ohms	0.76%	
Impedance (Measure)			
300 kHz to 1 MHz	50 ohms	12.71%	
1 MHz to 100 MHz	50 ohms	8.19%	
100 MHz to 150 MHz	50 ohms	12.71%	
100 Hz, 1 kHz, 10 kHz, 100 kHz	50 ohms	1.97%	with LCR Meter
DC to 6 GHz	50 ohms	11.79%	(TDR)
Electrical Length (TDR Measure)			
1 GHz	30 cm	7.57%	
Return Loss			
<i>Frequency</i>	<i>Directivity</i>	<i>Test Port Match</i>	<i>Best Uncertainty (\pm)^{note 1,3}</i>
0.01 GHz to 8.4 GHz	≥ 36 dB	≥ 23 dB	$0.16 \pm 0.071 \text{ p}^2$
8.4. GHz to 12.4 GHz	≥ 36 dB	≥ 19 dB	$0.16 \pm 0.112 \text{ p}^2$
12.4 GHz to 18 GHz	≥ 34 dB	≥ 15 dB	$0.02 \pm 0.178 \text{ p}^2$

Insertion Loss

<i>Frequency</i>	<i>Nominal</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
300 kHz to 1 MHz	> 60 dB Dynamic Range	13.37%	
1 MHz to 100 MHz	> 60 dB Dynamic Range	9.18%	
100 MHz to 300 MHz	> 60 dB Dynamic Range	13.37%	
300 MHz to 1.5 GHz	> 60 dB Dynamic Range	18.64%	
1.5 GHz to 2 GHz	> 60 dB Dynamic Range	33.93%	
Phase (Measure)			
300 kHz to 1 MHz	0 to 360 degrees	2.57%	
1 MHz to 100 MHz	0 to 360 degrees	0.66%	
100 MHz to 300 MHz	0 to 360 degrees	2.57%	
300 MHz to 1.5 GHz	0 to 360 degrees	3.85%	
1.5 GHz to 2 GHz	0 to 360 degrees	7.70%	
0.01 Hz to 160 MHz	-180 to 360 degrees	2.96%	with Series Counters

NVLAP Code: 20/R17

Power Meters

RF Power Absolute

<i>Frequency</i>	<i>Nominal</i>	<i>Best Uncertainty (\pm)^{note 1,2}</i>	<i>Remarks</i>
100 kHz to 18 GHz	+20 dBm to -30 dBm	M + 0.55 dB	
100 kHz to 18 GHz	+30 dBm to -20 dBm	M + 0.25 dB	
50 MHz to 26.5 Hz	+30 dBm to -20 dBm	M + 0.57 dB	
10 kHz to 100 MHz	0.5 mV	M + 0.20 dB	
100 MHz to 300 MHz	0.5 mV	M + 0.24 dB	
300 MHz to 1 GHz	0.5 mV	M + 0.28 dB	
1 GHz to 1.2 GHz	0.5 mV	M + 0.43 dB	
10 kHz to 100 MHz	1.0 mV	M + 0.14 dB	
100 MHz to 1 GHz	1.0 mV	M + 0.20 dB	
300 MHz to 1 GHz	1.0 mV	M + 0.24 dB	
1 GHz to 1.2 GHz	1.0 mV	M + 0.42 dB	
10 kHz to 100 MHz	10 mV to 1000 mV	M + 0.11 dB	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Frequency</i>	<i>Nominal</i>	<i>Best Uncertainty (\pm)^{note 1,2}</i>	<i>Remarks</i>
100 MHz to 300 MHz	10 mV to 1000 mV	M + 0.11 dB	
300 MHz to 1 GHz	10 mV to 1000 mV	M + 0.22 dB	
1 GHz to 1.2 GHz	10 mV to 1000 mV	M + 0.41 dB	
Tuned RF Power - Absolute			
100 kHz to 2.6 GHz	0 dBm to -100 dBm	M + 0.28 dB	
100 kHz to 2.6 GHz	-100 dBm to -110 dBm	M + 0.30 dB	
100 kHz to 2.6 GHz	-110 dBm to -120 dBm	M + 0.32 dB	
2.5 GHz to 26.5 GHz	0 dBm to -10 dBm	M + 0.64 dB	
2.5 GHz to 26.5 GHz	-10 dBm to -40 dBm	M + 0.61 dB	
2.5 GHz to 26.5 GHz	-40 dBm to -60 dBm	M + 0.62 dB	
2.5 GHz to 26.5 GHz	-60 dBm to -80 dBm	M + 0.63 dB	
2.5 GHz to 26.5 GHz	-80 dBm to -90 dBm	M + 0.67 dB	
2.5 GHz to 26.5 GHz	-90 dBm to -110 dBm	M + 0.68 dB	
2.5 GHz to 26.5 GHz	-110 dBm to -120 dBm	M + 0.69 dB	

-
1. Represents an expanded uncertainty using a coverage factor, k=2.
 2. M = Mismatch uncertainty.
 3. Derived Return Loss uncertainty statements in 'p' (Reflective Coefficient).

NVLAP LAB CODE 200262-0

METROPLEX METROLOGY LAB, INC.

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Accreditation Valid Through: March 31, 2000

DIMENSIONAL

NVLAP Code: 20/D03

Gage Blocks

<i>Range</i>	<i>Best Uncertainty in μin (\pm)^{note 1}</i>	<i>Remarks</i>
to 1 in	2.5	
> 1 in to 4 in	2.5 + 0.5L ^{note 2}	

NVLAP Code: 20/D05

Length and Diameter

	<i>Range</i>	<i>Best Uncertainty in μin (\pm)^{note 1}</i>	<i>Remarks</i>
Calipers	to 72 in	500 + 12L ^{note 2}	
OD Micrometers	to 36 in	66 + 11L ^{note 2}	
ID Micrometer Head	to 1.0 in	66	
ID Micrometer Rods	to 30 in	34 + 2L ^{note 2}	
Micrometer End Stds.	to 30 in	34 + 2L ^{note 2}	
Dial Indicators			
Resolution	0.0010 in	580	
	0.0005 in	290	
	0.0001 in	64	
Radius Gages	All Sizes	180	
Optical Comparators			
Linear Travel	to 4 in	224	

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/D07

Measuring Wires

	<i>Range</i>	<i>Best Uncertainty in μin (\pm)^{note 1}</i>	<i>Remarks</i>
Thread Wires	29 ° and 60 °	13	In accordance with ANSI/ASME B1.2

NVLAP Code: 20/D11

Plug/Ring Gages

	<i>Range</i>	<i>Best Uncertainty in μin (\pm)^{note 1}</i>	<i>Remarks</i>
Plain Plug Gages	to 12 in	16 + 4L ^{note 2}	
Plain Ring Gages	to 7 in	22 + 4L ^{note 2}	

NVLAP Code: 20/D12

Surface

	<i>Range</i>	<i>Best Uncertainty in μin (\pm)^{note 1}</i>	<i>Remarks</i>
Surface Plates	to 72 X 144 in	10 + 13D ^{note 3}	Measured in lab @ 68 °F \pm 2

NVLAP Code: 20/D14

Threaded Plug and Ring Gages

	<i>Range</i>	<i>Best Uncertainty in μin (\pm)^{note 1}</i>	<i>Remarks</i>
Threaded Plug Gages			
Pitch Diameter	to 17 in	73 + 3L ^{note 2}	Over wire measurement
Major Diameter	to 17 in	16 + 4L ^{note 2}	Direct Measurement
Threaded Ring Gages			
Pitch Diameter	to 8 in	184 to 16L ^{note 2}	Functional
Minor Diameter	to 3 in	120	
	to 8 in	200	

1. Represents an expanded uncertainty using a coverage factor, k=2.
2. L=Length in inches
3. D=Diagonal Length in feet

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 200302-0

VLSI STANDARDS, INC.
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E-Mail: prabha@vlsistd.com

Accreditation Valid Through: June 30, 2000

DIMENSIONAL*NVLAP Code:* 20/D12

Surface Texture

STEP HEIGHT STANDARDS (SHS) - Thin

<i>Nominal Height</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Percentage Uncertainty (\pm)^{note 2}</i>
8 nm	0.7 nm	8.7
18 nm	0.7 nm	3.8
44 nm	0.8 nm	1.8
88 nm	1.1 nm	1.2
180 nm	1.8 nm	1.0
450 nm	2.7 nm	0.6
940 nm	5.5 nm	0.5

STEP HEIGHT STANDARDS (SHS) - Thick

1.8 μm	0.01 μm	0.5
4.5 μm	0.04 μm	0.8
8.0 μm	0.08 μm	1.0
24 μm	0.14 μm	0.5
50 μm	0.26 μm	0.5

NVLAP Code: 20/D17

Film Thickness Standards (FTS)

FTS for SiO₂ films

<i>Nominal Thickness</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Percentage Uncertainty (\pm)^{note 2}</i>
4.5 nm	0.2 nm	4.44
7.5 nm	0.2 nm	2.67
12 nm	0.2 nm	1.67
25 nm	0.2 nm	0.80
50 nm	0.2 nm	0.40

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

<i>Nominal Thickness</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Percentage Uncertainty (\pm)^{note 2}</i>
100 nm	0.4 nm	0.40
125 nm	0.4 nm	0.32
200 nm	0.5 nm	0.25
285 nm	0.5 nm	0.18
400 nm	0.5 nm	0.13
675 nm	0.6 nm	0.09
940 nm	0.6 nm	0.06
1010 nm	0.6 nm	0.06

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.
 2. Normalized to the nominal value.

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 200311-0

UNITED TESTING SYS. CANADA, LTD. DYNAMIC TESTING SYS. INT. INC.

225 Bradwick Drive, #21
Concord Ontario L4K 1K7
CANADA

Contact: Mr. Arno M. Dickertmann

Phone: 905-669-5327

Fax: 905-738-5051

Accreditation Valid Through: March 31, 2000

DIMENSIONAL

NVLAP Code: 20/D05

Length

Range	Best Uncertainty (\pm) ^{note 1}	Remarks
Extensometer Linear Calibrator		
0 to 25.4 mm (0 to 1.0 in)	0.33 μ m	Heidenhain MT25
Extensometer Gage Length		
0 to 4.0 in	0.00137 in	Mitutoyo Digimatic Caliper
0 to 12.0 in	0.00177 in	Mitutoyo Digimatic Caliper
Crosshead Travel		
0 to 24.0 in	0.00206 in	Mitutoyo Digimatic
Field Service Calibration or Extensometers		
0 to 1 in	0.000034 in	ASTM E83

MECHANICAL

NVLAP Code: 20/M06

Force

	Range in lbs	Best Uncertainty (\pm) ^{note 1}	Remarks
	.1 to 300,000	0.05 %	ASTM E74
	.1 to 1,000,000	0.25 %	ASTM E4
Field Service Calibration of:			
Devices	Range in lbs	Best Uncertainty (\pm) ^{note 1}	Remarks
Tensile Testing Machines	to 1,000,000	0.25 %	ASTM E4
Compression Testers	to 1,000,000	0.25 %	ASTM E4

1. Represents an expanded uncertainty using a coverage factor, k=2.

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP LAB CODE 200338-0

SE LABORATORIES
1065 Comstock Street
Santa Clara, CA 95054
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Fax: 408-988-6186
E-Mail: golden@selabs.com
URL: http://www.se-labs.com

Accreditation Valid Through: March 31, 2000

ELECTROMAGNETIC - DC/LOW FREQUENCY

NVLAP Code: 20/E02

AC Current

*Best Uncertainty (\pm) in ppm of output + $nA^{note\ 1,3}$
Frequency in Hertz*

Range	10 to 20	20 to 40	40 to 1 k	1 k to 5 k	5 k to 10 k
220 μA	250 + 16	160 + 10	120 + 8	280 + 12	1100 + 65
2.2 mA	250 + 40	160 + 35	120 + 35	200 + 110	1100 + 650
22 mA	250 + 400	160 + 350	120 + 350	200 + 550	1100 + 5000

Best Uncertainty (\pm) in ppm of output + $\mu A^{note\ 1,3}$

220 mA	250 + 4	160 + 3.5	120 + 2.5	200 + 3.5	1100 + 10
20 Hz + 1 kHz					
2.2 A		260 + 35		450 + 80	7000 + 160

NVLAP Code: 20/E05

DC Resistance

Range in ohms	Best Uncertainty (\pm) in ppm of output ^{note 1}	Remarks
19 k	8.5	Meter Calibration
100 k	11	Meter Calibration
190 k	11	Meter Calibration
1 M	20	Meter Calibration
1.9 M	21	Meter Calibration
10 M	40	Meter Calibration
19 M	47	Meter Calibration
100 M	100	Meter Calibration

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E05

DC Resistance

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm of output^{note 1}</i>	<i>Remarks</i>
1	95	Meter Calibration
1.9	95	Meter Calibration
10	23	Meter Calibration
19	23	Meter Calibration
100	10	Meter Calibration
190	10	Meter Calibration
1 k	8.5	Meter Calibration
1.9 k	8.5	Meter Calibration
10 k	8.5	Meter Calibration

NVLAP Code: 20/E05

DC Current

<i>Range</i>	<i>Best Uncertainty (\pm) in ppm of output + nA^{note 1}</i>	<i>Remarks</i>
220 μ A	40 + 6	Meter Calibration
2.2 mA	35 + 7	Meter Calibration
22 mA	35 + 40	Meter Calibration
<i>Range</i>	<i>Best Uncertainty (\pm) in ppm of output + μA^{note 1}</i>	<i>Remarks</i>
220 mA	45 + 7	add (\pm) 200 x I ² in ppm
2.2 A	80 + 12	add (\pm) 10 x I ² in ppm

NVLAP Code: 20/E06

DC Voltage

<i>Range in volts</i>	<i>Best Uncertainty (\pm) in ppm of output^{note 1,2}</i>	<i>Remarks</i>
1.0	1.68	Zener Reference ^{note 2}
1.018	2.13	Zener Reference ^{note 2}
10	3.54	Zener Reference ^{note 2}
<i>Range in volts</i>	<i>Best Uncertainty (\pm) in ppm of output + μV^{note 1}</i>	<i>Remarks</i>
220 m	7.5 + 0.4	Meter Calibration
2.2	5 + .07	Meter Calibration
11	3.5 + 2.5	Meter Calibration
22	3.5 + 4	Meter Calibration
220	5 + 40	Meter Calibration
1100	6.5 + 400	Meter Calibration

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

NVLAP Code: 20/E09

LF AC Voltage

<i>Best Uncertainty (\pm) in ppm of output + $\mu V^{note 1,3}$</i>								
<i>Range in volts</i>	<i>10 to 20</i>	<i>20 to 40</i>	<i>40 to 20 k</i>	<i>20 k to 50 k</i>	<i>50 k to 100 k</i>	<i>100 k to 300 k</i>	<i>300 k to 500 k</i>	<i>500 k to 1 MHz</i>
2.2 m	240 + 4	90 + 4	80 + 4	200 + 4	500 + 5	1050 + 10	1400 + 20	2700 + 20
22 m	240 + 4	90 + 4	80 + 4	200 + 4	500 + 5	1050 + 10	1400 + 20	2700 + 20
220 m	240 + 12	90 + 7	80 + 7	200 + 7	460 + 17	900 + 20	1400 + 25	2700 + 45
2.2	240 + 40	90 + 15	45 + 8	75 + 10	110 + 300	420 + 80	1000 + 200	1700 + 300
22	240 + 400	90 + 150	45 + 50	75 + 100	100 + 200	275 + 600	1000 + 2000	1500 + 3200

<i>Best Uncertainty (\pm) in ppm of output + $mV^{note 1,3}$</i>								
220	240 + 4	90 + 1.5	52 + 0.6	80 + 1	150 + 2.5	900 + 16	4400 + 40	8000 + 80
1100	15 to Hz		50 Hz to 1 kHz ^{note 4}					
	300 + 16		70 + 3.5 ^{note 4}					

TIME AND FREQUENCY

NVLAP Code: 20/F01

Frequency Dissemination

<i>Range in MHz</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0.1	4 parts in 10^{12}	Cesium Beam GPS
1	4 parts in 10^{12}	Cesium Beam GPS
5	4 parts in 10^{12}	Cesium Beam GPS
10	4 parts in 10^{12}	Cesium Beam GPS

NVLAP Code: 20/F03

Oscillator Characterization

<i>Range in MHz</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0.1	4 parts in 10^{12}	Cesium Beam GPS
1	4 parts in 10^{12}	Cesium Beam GPS
5	4 parts in 10^{12}	Cesium Beam GPS
10	4 parts in 10^{12}	Cesium Beam GPS

INDEX E. LISTING OF CALIBRATION LABORATORIES BY NVLAP LAB CODE - continued

ELECTROMAGNETIC - RF/MICROWAVE*NVLAP Code:* 20/R12

RF Microwave Bolometer Units

<i>Range in GHz</i>	<i>Best Uncertainty (\pm) in percent^{note 1}</i>	<i>Remarks^{note 5}</i>
.01	0.58	
.02	0.51	
.03	0.55	
.04	0.51	
.05	0.31	
.06	0.30	
.07	0.30	
.08	0.31	
.09	0.31	
.10	0.34	
.15	0.31	
.20	0.31	
.25	0.31	
.30	0.35	
.35	0.32	
.40	0.32	
.45	0.32	
.50	0.32	
.55	0.32	
.60	0.33	
.65	0.33	
.70	0.33	
.75	0.33	
.80	0.33	
.85	0.34	
.90	0.34	
.95	0.34	
1.0	0.35	

-
1. Represents an expanded uncertainty using a coverage factor, $k=2$.
 2. Approximate value. Actual value determined by the test statistics.
 3. Meter Calibration.
 4. Maximum output is 250 V.
 5. Characterization of levelled sine sources used in calibration of oscilloscope bandwidth.

NVLAP LAB CODE 200352-0

GTE ELECTRONIC REPAIR SERVICES

3301 Wayne Trace
Fort Wayne, IN 46806-1400
Contact: Mr. Jeff C. Gust
Phone: 219-428-6504
Fax: 219-424-1031
E-Mail: jeff.gust@supply.gte.com

Accreditation Valid Through: June 30, 2000

ELECTROMAGNETICS - DC/LOW FREQUENCY

NVLAP Code: 20/E05

DC Resistance

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
0.001 ohm	1.5 ppm	
0.01 ohm	1 ppm	
0.1 ohm	1 ppm	
1 ohm	0.5 ppm	
10 ohm	2.5 ppm	
100 ohm	3.5 ppm	
1,000 ohm	4.5 ppm	
10,000 ohm	0.5 ppm	
100,000 ohm	2.5 ppm	
1,000,000 ohm	7 ppm	
10,000,000 ohm	15 ppm	
100,000,000 ohm	35 ppm	
1,000,000,000 ohm	125 ppm	

NVLAP Code: 20/E06

DC Voltage

<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
10 V Zener Ref	0.5 ppm	

1. Represents an expanded uncertainty using a coverage factor, $k=2$.

INDEX

F

LISTING BY
STATE/
COUNTRY

NVLAP LAB CODE 200379-0

Ultra Scientific, Inc.

250 Smith Street
North Kingston, RI 02852-7723
Contact: Mr. Edward F. Martz
Phone: 401-294-9400
Fax: 401-295-2330
E-Mail: emartz@ultrasci.com

Providers of Proficiency Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

USEPA WPCHEM

20/U29	Minerals: Calcium, Magnesium, Potassium, and Sodium
20/U30	Minerals: Chloride, Fluoride, and Sulfate
20/U34	Volatile Halocarbon Compounds
20/U35	Volatile Aromatic Compounds
20/U36	Chlorinated Pesticides
20/U37	Chlordane
20/U38	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Water
20/U39	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Oil
20/U42	Total Alkalinity (as CaCO subscript 3)
20/U43	Total Hardness (as CaCO subscript 3)
20/U44	Total Dissolved Solids
20/U48	Specific Conductance

USEPA WPCHEM/DMRQACHEM

20/U28	Trace Metals
20/U31	Nutrients
20/U32	Total Residual Chlorine
20/U33	Cyanide
20/U40	Total Phenolics
20/U41	Demands (Source: Glucose and glutamic acid)
20/U45	Non-Filterable Residue
20/U46	Oil and Grease
20/U47	pH

USEPA WSCHEM

20/U01	Trace Metals
20/U02	Sodium
20/U03	Nitrate, Nitrite, Fluoride, and Orthophosphate
20/U04	Bromate, Bromide, Chlorate, and Chlorite
20/U05	Sulfate
20/U06	Residual Free Chlorine
20/U07	Cyanide
20/U09	Volatile Organic Compounds (VOCs) Group I
20/U10	Volatile Organic Compounds (VOCs) Group II
20/U11	Insecticides (Pesticides)
20/U12	Herbicides (Pesticides)
20/U13	Carbamate Pesticides
20/U14	Polycyclic Aromatic Hydrocarbon (PAH)
20/U15	Polychlorinated Biphenyls (PCBs/Aroclors)
20/U16	Toxaphene and Chlordane
20/U17	Dioxin (2, 3, 7, 8-TCDD)
20/U18	Adipate and Phthalate Esters
20/U19	Haloacetic Acids
20/U20	Chloral Hydrate

20/U21	Total Organic Carbon (TOC)
20/U22	Alkalinity (as CaCO subscript 3)
20/U23	Calcium Hardness (as CaCO subscript 3)
20/U24	Total Filterable Residue
20/U25	pH
20/U26	Turbidity

NVLAP LAB CODE 200384-0

Analytical Products Group, Inc.

2730 Washington Boulevard
Belpre, OH 45714
Contact: Mr. Thomas V. Coyner
Phone: 740-423-4200
Fax: 740-423-5588
E-Mail: APG@citynet.net
URL: <http://www.APGQA.com>

Providers of Proficiency Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

USEPA WPCHEM

20/U29	Minerals: Calcium, Magnesium, Potassium, and Sodium
20/U30	Minerals: Chloride, Fluoride, and Sulfate
20/U34	Volatile Halocarbon Compounds
20/U35	Volatile Aromatic Compounds
20/U36	Chlorinated Pesticides
20/U37	Chlordane
20/U38	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Water
20/U39	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Oil
20/U42	Total Alkalinity (as CaCO subscript 3)
20/U43	Total Hardness (as CaCO subscript 3)
20/U44	Total Dissolved Solids
20/U48	Specific Conductance

USEPA WPCHEM/DMRQACHEM

20/U28	Trace Metals
20/U31	Nutrients
20/U32	Total Residual Chlorine
20/U33	Cyanide
20/U40	Total Phenolics
20/U41	Demands (Source: Glucose and glutamic acid)
20/U45	Non-Filterable Residue
20/U46	Oil and Grease
20/U47	pH

USEPA WSCHEM

20/U01	Trace Metals
20/U02	Sodium
20/U03	Nitrate, Nitrite, Fluoride, and Orthophosphate
20/U04	Bromate, Bromide, Chlorate, and Chlorite
20/U05	Sulfate
20/U06	Residual Free Chlorine
20/U07	Cyanide
20/U09	Volatile Organic Compounds (VOCs) Group I
20/U10	Volatile Organic Compounds (VOCs) Group II
20/U11	Insecticides (Pesticides)
20/U12	Herbicides (Pesticides)
20/U13	Carbamate Pesticides
20/U14	Polycyclic Aromatic Hydrocarbon (PAH)

20/U15	Polychlorinated Biphenyls (PCBs/Aroclors)
20/U16	Toxaphene and Chlordane
20/U18	Adipate and Phthalate Esters
20/U20	Chloral Hydrate
20/U21	Total Organic Carbon (TOC)
20/U22	Alkalinity (as CaCO subscript 3)
20/U23	Calcium Hardness (as CaCO subscript 3)
20/U24	Total Filterable Residue
20/U25	pH
20/U26	Turbidity

NVLAP LAB CODE 200386-0

Environmental Resource Associates (ERA)

5540 Marshall Street
Arvada, CO 80002
Contact: Mr. Charles Wibby
Phone: 303-431-8454
Fax: 303-421-0159
E-Mail: eracxw@aol.com
URL: <http://www.eraqc.com>

Providers of Proficiency Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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USEPA WPCHEM

20/U29	Minerals: Calcium, Magnesium, Potassium, and Sodium
20/U30	Minerals: Chloride, Fluoride, and Sulfate
20/U34	Volatile Halocarbon Compounds
20/U35	Volatile Aromatic Compounds
20/U36	Chlorinated Pesticides
20/U37	Chlordane
20/U38	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Water
20/U39	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Oil
20/U42	Total Alkalinity (as CaCO subscript 3)
20/U43	Total Hardness (as CaCO subscript 3)
20/U44	Total Dissolved Solids
20/U48	Specific Conductance

USEPA WPCHEM/DMRQACHEM

20/U28	Trace Metals
20/U31	Nutrients
20/U32	Total Residual Chlorine
20/U33	Cyanide
20/U40	Total Phenolics
20/U41	Demands (Source: Glucose and glutamic acid)
20/U45	Non-Filterable Residue
20/U46	Oil and Grease
20/U47	pH

USEPA WSCHEM

20/U01	Trace Metals
20/U02	Sodium
20/U03	Nitrate, Nitrite, Fluoride, and Orthophosphate
20/U04	Bromate, Bromide, Chlorate, and Chlorite
20/U05	Sulfate
20/U06	Residual Free Chlorine
20/U07	Cyanide
20/U09	Volatile Organic Compounds (VOCs) Group I
20/U10	Volatile Organic Compounds (VOCs) Group II

20/U11	Insecticides (Pesticides)
20/U12	Herbicides (Pesticides)
20/U13	Carbamate Pesticides
20/U14	Polycyclic Aromatic Hydrocarbon (PAH)
20/U15	Polychlorinated Biphenyls (PCBs/Aroclors)
20/U16	Toxaphene and Chlordane
20/U18	Adipate and Phthalate Esters
20/U19	Haloacetic Acids
20/U20	Chloral Hydrate
20/U21	Total Organic Carbon (TOC)
20/U22	Alkalinity (as CaCO subscript 3)
20/U23	Calcium Hardness (as CaCO subscript 3)
20/U24	Total Filterable Residue
20/U25	pH
20/U26	Turbidity

USEPA WSMICRO

20/U27	Coliform (Presence/Absence)
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NVLAP LAB CODE 200387-0

NYS DOH Environmental Laboratory Approval Program

Empire State Plaza
P.O. Box 509
Albany, NY 12201-0509
Contact: Mr. Kenneth W. Jackson
Phone: 518-485-5570
Fax: 518-485-5568
E-Mail: jackson@wadsworth.org
URL: <http://www.wadsworth.org/labcert/elap.html>

Providers of Proficiency Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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USEPA WPCHEM

20/U29	Minerals: Calcium, Magnesium, Potassium, and Sodium
20/U30	Minerals: Chloride, Fluoride, and Sulfate
20/U34	Volatile Halocarbon Compounds
20/U35	Volatile Aromatic Compounds
20/U36	Chlorinated Pesticides
20/U37	Chlordane
20/U38	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Water
20/U42	Total Alkalinity (as CaCO subscript 3)
20/U43	Total Hardness (as CaCO subscript 3)
20/U44	Total Dissolved Solids
20/U48	Specific Conductance

USEPA WPCHEM/DMRQACHEM

20/U28	Trace Metals
20/U31	Nutrients
20/U33	Cyanide
20/U40	Total Phenolics
20/U41	Demands (Source: Glucose and glutamic acid)
20/U45	Non-Filterable Residue
20/U46	Oil and Grease
20/U47	pH

USEPA WSCHEM

20/U01	Trace Metals (Note: Composite formulation of the PT Material for mercury does not conform to the current USEPA Criteria Document,
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	dated 12/30/1999.)
20/U02	Sodium
20/U03	Nitrate, Nitrite, Fluoride, and Orthophosphate
20/U04	Bromate, Bromide, Chlorate, and Chlorite
20/U05	Sulfate
20/U07	Cyanide
20/U08	Asbestos
20/U09	Volatile Organic Compounds (VOCs) Group I
20/U10	Volatile Organic Compounds (VOCs) Group II
20/U11	Insecticides (Pesticides)
20/U12	Herbicides (Pesticides)
20/U13	Carbamate Pesticides
20/U14	Polycyclic Aromatic Hydrocarbon (PAH)
20/U15	Polychlorinated Biphenyls (PCBs/Aroclors)
20/U16	Toxaphene and Chlordane
20/U17	Dioxin (2, 3, 7, 8-TCDD)
20/U18	Adipate and Phthalate Esters
20/U21	Total Organic Carbon (TOC)
20/U22	Alkalinity (as CaCO subscript 3)
20/U23	Calcium Hardness (as CaCO subscript 3)
20/U24	Total Filterable Residue
20/U25	pH

USEPA WSMICRO

20/U27	Coliform (Presence/Absence)
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NVLAP LAB CODE 200388-0

Chrisope Technologies, A Division of Remel

3941 Ryan Street
Lake Charles, LA 70605
Contact: Ms. Jody D. Moss
Phone: 318-479-1000 x236
Fax: 318-479-1006
E-Mail: jdmoss@remelinc.com

Providers of Proficiency Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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USEPA WSMICRO

20/U27	Coliform (Presence/Absence)
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NVLAP LAB CODE 200389-0

AccuStandard, Inc.

125 Market Street
New Haven, CT 06513-3031
Contact: Mr. William McClain
Phone: 203-786-5290 x102
Fax: 203-786-5287
E-Mail: usa@accustandard.com
URL: <http://www.accustandard.com>

Providers of Proficiency Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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USEPA WPCHEM

20/U29	Minerals: Calcium, Magnesium, Potassium, and Sodium
20/U30	Minerals: Chloride, Fluoride, and Sulfate
20/U34	Volatile Halocarbon Compounds
20/U35	Volatile Aromatic Compounds

20/U36	Chlorinated Pesticides
20/U37	Chlordane
20/U38	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Water
20/U39	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Oil
20/U42	Total Alkalinity (as CaCO subscript 3)
20/U43	Total Hardness (as CaCO subscript 3)
20/U44	Total Dissolved Solids
20/U48	Specific Conductance
USEPA WPCHEM/DMRQACHEM	
20/U28	Trace Metals
20/U31	Nutrients
20/U32	Total Residual Chlorine
20/U33	Cyanide
20/U40	Total Phenolics
20/U41	Demands (Source: Glucose and glutamic acid)
20/U45	Non-Filterable Residue
20/U46	Oil and Grease
20/U47	pH

USEPA WSCHEM

20/U01	Trace Metals
20/U02	Sodium
20/U03	Nitrate, Nitrite, Fluoride, and Orthophosphate
20/U04	Bromate, Bromide, Chlorate, and Chlorite
20/U05	Sulfate
20/U06	Residual Free Chlorine
20/U07	Cyanide
20/U09	Volatile Organic Compounds (VOCs) Group I
20/U10	Volatile Organic Compounds (VOCs) Group II
20/U11	Insecticides (Pesticides)
20/U12	Herbicides (Pesticides)
20/U13	Carbamate Pesticides
20/U14	Polycyclic Aromatic Hydrocarbon (PAH)
20/U15	Polychlorinated Biphenyls (PCBs/Aroclors)
20/U16	Toxaphene and Chlordane
20/U17	Dioxin (2, 3, 7, 8-TCDD)
20/U18	Adipate and Phthalate Esters
20/U19	Haloacetic Acids
20/U20	Chloral Hydrate
20/U21	Total Organic Carbon (TOC)
20/U22	Alkalinity (as CaCO subscript 3)
20/U23	Calcium Hardness (as CaCO subscript 3)
20/U24	Total Filterable Residue
20/U25	pH
20/U26	Turbidity

NVLAP LAB CODE 200390-0

Absolute Standards, Inc.

P.O. Box 5585
Hamden, CT 06518-0585
Contact: Mr. Stephen J. Arpie, M.S.
Phone: 203-281-2917
Fax: 203-281-2922
E-Mail: absolutest@aol.com
URL: <http://www.absolutestandards.com>

Providers of Proficiency Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

USEPA WPCHEM

20/U29	Minerals: Calcium, Magnesium, Potassium, and Sodium
20/U30	Minerals: Chloride, Fluoride, and Sulfate
20/U34	Volatile Halocarbon Compounds
20/U35	Volatile Aromatic Compounds
20/U36	Chlorinated Pesticides
20/U37	Chlordane
20/U38	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Water
20/U39	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Oil
20/U42	Total Alkalinity (as CaCO subscript 3)
20/U43	Total Hardness (as CaCO subscript 3)
20/U44	Total Dissolved Solids
20/U48	Specific Conductance

USEPA WPCHEM/DMRQACHEM

20/U28	Trace Metals
20/U31	Nutrients
20/U32	Total Residual Chlorine
20/U33	Cyanide
20/U40	Total Phenolics
20/U41	Demands (Source: Glucose and glutamic acid)
20/U45	Non-Filterable Residue
20/U46	Oil and Grease
20/U47	pH

USEPA WSCHEM

20/U01	Trace Metals
20/U02	Sodium
20/U03	Nitrate, Nitrite, Fluoride, and Orthophosphate
20/U04	Bromate, Bromide, Chlorate, and Chlorite
20/U05	Sulfate
20/U06	Residual Free Chlorine
20/U07	Cyanide
20/U09	Volatile Organic Compounds (VOCs) Group I
20/U10	Volatile Organic Compounds (VOCs) Group II
20/U11	Insecticides (Pesticides)
20/U12	Herbicides (Pesticides)
20/U13	Carbamate Pesticides
20/U14	Polycyclic Aromatic Hydrocarbon (PAH)
20/U15	Polychlorinated Biphenyls (PCBs/Aroclors)
20/U16	Toxaphene and Chlordane
20/U18	Adipate and Phthalate Esters
20/U19	Haloacetic Acids
20/U20	Chloral Hydrate
20/U21	Total Organic Carbon (TOC)
20/U22	Alkalinity (as CaCO subscript 3)
20/U23	Calcium Hardness (as CaCO subscript 3)
20/U24	Total Filterable Residue
20/U25	pH
20/U26	Turbidity

NVLAP LAB CODE 200391-0

Microcheck, Inc.

9 School Circle
Northfield Falls, VT 05664
Contact: Dr. Michael G. Sinclair
Phone: 802-485-6600 x22
Fax: 802-485-6100
E-Mail: micro@microcheck.com
URL: http://www.micro@microcheck.com

Providers of Proficiency Testing

Accreditation Valid Through: December 31, 2000

NVLAP

Code Designation

USEPA WSMICRO

20/U27	Coliform (Presence/Absence)
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NVLAP LAB CODE 200392-0

Spex Certiprep Inc.

203 Norcross Avenue
Metuchen, NJ 08840
Contact: Dr. Vanaja Sivakumar
Phone: 732-549-7144 x418
Fax: 732-494-1747
E-Mail: vsivakumar@spexcsp.com

Providers of Proficiency Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code Designation

USEPA WPCHEM

20/U29	Minerals: Calcium, Magnesium, Potassium, and Sodium
20/U30	Minerals: Chloride, Fluoride, and Sulfate
20/U42	Total Alkalinity (as CaCO subscript 3)
20/U43	Total Hardness (as CaCO subscript 3)
20/U44	Total Dissolved Solids
20/U48	Specific Conductance

USEPA WPCHEM/DMRQACHEM

20/U28	Trace Metals
20/U31	Nutrients
20/U32	Total Residual Chlorine
20/U33	Cyanide
20/U40	Total Phenolics
20/U41	Demands (Source: Glucose and glutamic acid)
20/U45	Non-Filterable Residue
20/U46	Oil and Grease
20/U47	pH

USEPA WSCHEM

20/U01	Trace Metals
20/U02	Sodium
20/U03	Nitrate, Nitrite, Fluoride, and Orthophosphate
20/U04	Bromate, Bromide, Chlorate, and Chlorite
20/U05	Sulfate
20/U06	Residual Free Chlorine
20/U07	Cyanide
20/U21	Total Organic Carbon (TOC)
20/U22	Alkalinity (as CaCO subscript 3)
20/U23	Calcium Hardness (as CaCO subscript 3)
20/U24	Total Filterable Residue

INDEX F. LISTING OF CHEMICAL CALIBRATION LABORATORIES BY NVLAP LAB CODE- continued

20/U25 pH
20/U26 Turbidity

NVLAP LAB CODE 200395-0**Protocol Analytical Supplies, Inc.**

472 Lincoln Blvd.
Middlesex, NJ 08846
Contact: Mr. William H. Hahn, Jr.
Phone: 732-627-0500
Fax: 732-627-0979
E-Mail: bhahn@prostds.com

Providers of Proficiency Testing

Accreditation Valid Through: September 30, 2000

NVLAP

Code	Designation
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USEPA WPCHEM

20/U34	Volatile Halocarbon Compounds
20/U35	Volatile Aromatic Compounds
20/U36	Chlorinated Pesticides
20/U37	Chlordane
20/U38	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Water
20/U39	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Oil

USEPA WSCHEM

20/U09	Volatile Organic Compounds (VOCs) Group I
20/U10	Volatile Organic Compounds (VOCs) Group II
20/U11	Insecticides (Pesticides)
20/U12	Herbicides (Pesticides)
20/U14	Polycyclic Aromatic Hydrocarbon (PAH)
20/U15	Polychlorinated Biphenyls (PCBs/Aroclors)
20/U16	Toxaphene and Chlordane

NVLAP LAB CODE 200440-0**NSI Environmental Solutions, Inc.**

2 Triangle Drive
RTP, NC 27709
Contact: Mr. Mark R. Hammersla
Phone: 919-406-2156
Fax: 919-544-0334
E-Mail: mark.hammersla@mantech.com

Providers of Proficiency Testing

Accreditation Valid Through: December 31, 2000

NVLAP

Code	Designation
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USEPA WPCHEM

20/U29	Minerals: Calcium, Magnesium, Potassium, and Sodium
20/U30	Minerals: Chloride, Fluoride, and Sulfate
20/U34	Volatile Halocarbon Compounds
20/U35	Volatile Aromatic Compounds
20/U36	Chlorinated Pesticides
20/U37	Chlordane
20/U38	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Water
20/U39	Polychlorinated Biphenyls (PCBs) (as Aroclors) in Oil

20/U42	Total Alkalinity (as CaCO subscript 3)
20/U43	Total Hardness (as CaCO subscript 3)
20/U44	Total Dissolved Solids
20/U48	Specific Conductance
USEPA WPCHEM/DMRQACHEM	
20/U28	Trace Metals
20/U32	Total Residual Chlorine
20/U33	Cyanide
20/U40	Total Phenolics
20/U45	Non-Filterable Residue
20/U46	Oil and Grease
20/U47	pH

USEPA WSCHEM

20/U01	Trace Metals
20/U02	Sodium
20/U03	Nitrate, Nitrite, Fluoride, and Orthophosphate
20/U05	Sulfate
20/U06	Residual Free Chlorine
20/U07	Cyanide
20/U09	Volatile Organic Compounds (VOCs) Group I
20/U10	Volatile Organic Compounds (VOCs) Group II
20/U11	Insecticides (Pesticides)
20/U14	Polycyclic Aromatic Hydrocarbon (PAH)
20/U15	Polychlorinated Biphenyls (PCBs/Aroclors)
20/U16	Toxaphene and Chlordane
20/U18	Adipate and Phthalate Esters
20/U21	Total Organic Carbon (TOC)
20/U22	Alkalinity (as CaCO subscript 3)
20/U23	Calcium Hardness (as CaCO subscript 3)
20/U24	Total Filterable Residue
20/U25	pH
20/U26	Turbidity

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